University Physicians Medical Building - Ground Floor CHCC Clinic Renovation

MU Project #: CP221951 For: The Curators of the University of Missouri University of Missouri, Columbia, Missouri



CONTRACTOR ACCESS 1'' = 80'-0''





-WALL

PROTECTION

FLOOR

2. CONTRACTOR SHALL COORDINATE FLUSH VALVES WITH GRAB BARS.

3. ALL FLUSH VALVES SHALL BE LOCATED ON OPEN SIDE OF TOILET. 4. ALL SINKS, WALL HUNG AND COUNTERTOP, SHALL BE PROVIDED WITH PAPER TOWEL

DISPENSER, SOAP DISPENSER AND OTHER NOTED ACCESSORIES. 5. THE CONTRACTOR SHALL COORDINATE WITH OWNER TO PROVIDE ACCESSORIES CONSISTENT WITH THE OWNER'S VENDOR SUPPLIES AND SHALL INSTALL ALL VENDOR SUPPLIED ACCESSORIES.

6. SEE REFERENCED INTERIOR ELEVATIONS FOR ADDITIONAL MOUNTING HEIGHTS. 7. AT ITEMS SHOWN TO BE RECESSED INTO A FIRE RATED WALL, CONSTRUCT A 5-SIDED BOX AROUND RECESSED ITEM. BOX SHALL BE 5/8" TYPE 'X' GYP. BD. TO MAINTAIN RATING. 8. WHERE TOILET ACCESSORIES OR WALL MOUNTED EQUIPMENT ARE MOUNTED ON WALL AND WALL PROTECTION, ADD ADDITIONAL WALL PROTECTION BEHIND OBJECT FOR A FLUSH MOUNTING SURFACE. WALL PROTECTION SHALL OVERHANG OBJECT 1/2" ON ALL SIDES.



project. The Design Professional, however, cannot and does not warrant or guarantee that the Client's project will comply will all interpretations of the ADA requirements or the requirements of other federal, state and local laws, rules, codes, ordinances and regulations as they apply to the project.



VICINITY MAP 1'' = 400'-0''

BID SET 08.29.2022

 International and the second and the s	RTITION SCHEDULE	PARTITION NOTES	SHEET INDEX
 A 147 W 14 STUDS A 148 STUDS <l< td=""><td>WALL THICKNESS PLAN DETAIL HEAD SILL U.L. # 4-7/8" 3 5/8" MTL STUDS @ 16" O.C. TYP. REFER TO PART. TAG FOR INSUL. 5/8" GYP. BD. EA SIDE METAL STUDS — CONT. FIRE CAULK PER SPEC. SPEC. SIDES CONT. FIRE SPEC. SPEC. SIDES CONT. FIRE SPEC. SPEC. SIDES CONT. FIRE SIDES CONT. SIDES CONT. SIDES</td><td> ALL GYPSUM WALL BOARD ABUTTING OTHER MATERIAL TO BE FINISHED WITH METAL TRIM BEAD AND JOINT COMPOUND WHERE VISIBLE. ALL WOOD AND PLYWOOD BLOCKING, WHERE CALLED FOR ON THE DRAWINGS, TO BE FIRE TREATED. ALL DOOR OPENINGS SHALL HAVE 1'-6" CLEAR FROM THE FACE OF THE FRAME TO THE </td><td>COVER:COVERPROJECT INFORMATIONG100CODE PLAN + ICG101CONTRACTOR ACCESSA100NOTED FLOOR PLAN + DEMO PLANA101DIMENSIONED FLOOR PLANA200REFLECTED CEILING PLAN + FINISH PLANA600INTERIOR ELEVATIONS + OPENING SCHEDULEA(0)CASEWORK SECTIONS</td></l<>	WALL THICKNESS PLAN DETAIL HEAD SILL U.L. # 4-7/8" 3 5/8" MTL STUDS @ 16" O.C. TYP. REFER TO PART. TAG FOR INSUL. 5/8" GYP. BD. EA SIDE METAL STUDS — CONT. FIRE CAULK PER SPEC. SPEC. SIDES CONT. FIRE SPEC. SPEC. SIDES CONT. FIRE SPEC. SPEC. SIDES CONT. FIRE SIDES CONT. SIDES CONT. SIDES	 ALL GYPSUM WALL BOARD ABUTTING OTHER MATERIAL TO BE FINISHED WITH METAL TRIM BEAD AND JOINT COMPOUND WHERE VISIBLE. ALL WOOD AND PLYWOOD BLOCKING, WHERE CALLED FOR ON THE DRAWINGS, TO BE FIRE TREATED. ALL DOOR OPENINGS SHALL HAVE 1'-6" CLEAR FROM THE FACE OF THE FRAME TO THE 	COVER:COVERPROJECT INFORMATIONG100CODE PLAN + ICG101CONTRACTOR ACCESSA100NOTED FLOOR PLAN + DEMO PLANA101DIMENSIONED FLOOR PLANA200REFLECTED CEILING PLAN + FINISH PLANA600INTERIOR ELEVATIONS + OPENING SCHEDULEA(0)CASEWORK SECTIONS
ASSOCIATION (GA OR UNDERWRITES) THE REPORT OF ART. TAG FOR INSUL SIDE SIDE SIDE SIDE SIDE SIDE SIDE SIDE	4-1/4" 4-1/4"	 PERPENDICULAR WALL ON THE PULL SIDE, AND 1'-0" CLEAR ON THE PUSH SIDE, TYPICAL. ALL FIRE RATED WALL AND FLOOR PENETRATIONS SHALL COMPLY WITH ASTM E-814. PARTITIONS TO BE BUILT IN ACCORDANCE WITH PARTITION SCHEDULE AND DESIGN REFERENCED. REFERENCES ARE TO LATEST EDITION OF GYPSUM 	MECHANICAL: M000 MECHANICAL SYMBOLS & ABBREVIATIONS MD100 MECHANICAL - GROUND FLOOR - DEMOLITION M100 MECHANICAL - GROUND FLOOR - NEW WORK M500 DETAILS & SCHEDULES
PARTITION TAGS PARTITION TAGS	7-1/4" 7-1/4"	ASSOCIATION (GA) OR UNDERWRITERS LABORATORIES INC, FIRE RESISTANCE DIRECTORIES, TYPICAL. 6. PARTITION SCHEDULE IS GENERAL TO ALL WALL TYPES IN THE PROJECT. REFER TO DETAILS FOR SPECIAL CONDITIONS AND SIZE REQUIREMENTS.	M700 TEMPERATURE CONTROLS PLUMBING + FIRE PROTECTION: P000 PLUMBING SYMBOLS AND ABBREVIATIONS PD100 PLUMBING - UNDERFLOOR DEMOLITION PLAN PD101 PLUMBING - CPOUND DEMOLITION PLAN
PARTITION TYPE RE: TO SCHEDULE ABOVE ELECTRICAL SYMBOLS AND ABBREVIATIONS I = PROVIDE SOUND BATT INSULATION E.ECTRICAL SYMBOLS AND ABBREVIATIONS U = NONHNSULATE PARTITION ELECTRICAL SYMBOLS AND ABBREVIATIONS ED100 ELECTRICAL SYMBOLS AND ABBREVIATIONS U = NONHNSULATE PARTITION ELECTRICAL SYMBOLS AND ABBREVIATIONS ED101 LIGHTING - GROUND FLOOR - DEMOLITION D = EXTEND GYP, BD. FINISH TO BO'N ABOVE FIN. CLG. ELECTRICAL SOLUDE LOOR - NEW WORK D = EXTEND GYP, BD. FINISH TO BO'N ABOVE FIN. CLG. ELECTRICAL SOLUDE LOOR - NEW WORK P = FRONDE VIPILI OF EXISTING WALL OPENING F = PROVIDE INFILL OF EXISTING WALL OPENING P = PARTIAL HEIGHT WALL PARTITION PER UL. NO. AND ASSEMBLY SCHED. S = 1 HOUR FIRE AND SMOKE RATED PARTITION PER UL. NO. AND ASSEMBLY SCHED. S = 1 HOUR FIRE AND SMOKE RATED PARTITION PER UL. NO. AND ASSEMBLY SCHED. S = 1 HOUR FIRE AND SMOKE RATED PARTITION PER UL. NO. AND ASSEMBLY SCHED. S = 1 HOUR FIRE AND SMOKE RATED PARTITION PER UL. NO. AND ASSEMBLY SCHED. N = NON-RATED PARTITION N = NON-RATED PARTITION N = NON-RATED PARTITION	RTITION TAGS		P100PLUMBING - UNDERFLOOR PLANP101PLUMBING - GROUND FLOOR PLANP400PLUMBING ISOMETRICSP401PLUMBING ISOMETRICSP500PLUMBING DETAILS AND SCHEDULESFP000FIRE PROTECTION SYMBOLS AND ABBREVIATIONFPD101FIRE PROTECTION - GROUND FLOOR DEMOLITICFP101FIRE PROTECTION GROUND FLOOR PLAN
	PARTITION TYPE RE: TO SCHEDULE ABOVE WALL INSULATION: I = PROVIDE SOUND BATT INSULATION U = NON-INSULATED PARTITION WALL FINISH HEIGHT: C = EXTEND GYP. BD. FINISH TO 6" ABOVE FIN. CLG. D = EXTEND GYP. BD. FINISH TO BOTTOM OF DECK F = PROVIDE INFILL OF EXISTING WALL OPENING P = PARTIAL HEIGHT WALL PARTITION RATING: 0 = 0 HOUR RATED PARTITION 1 = 1 HOUR RATED PARTITION PER U.L. NO. AND ASSEMBLY SCHED. 2 = 2 HOUR FIRE AND SMOKE RATED PARTITION PER U.L. NO. AND ASSEMBLY SCH S = 1 HOUR FIRE AND SMOKE RATED PARTITION PER U.L. NO. AND ASSEMBLY SCHED. H = 2 HOUR SMOKE RATED PARTITION PER U.L. NO. AND ASSEMBLY SCHED. N = NON-RATED PARTITION	4ED. 4ED.	ELECTRICAL: E000 ELECTRICAL SYMBOLS AND ABBREVIATIONS ED100 ELECTRICAL - GROUND FLOOR - DEMOLITION ED101 LIGHTING - GROUND FLOOR - NEW WORK E101 LIGHTING - GROUND FLOOR - NEW WORK E500 ELECTRICAL SCHEDULES E501 ELECTRICAL DETAILS



ELECTRICAL STATEMENT: I hereby certify that Sheets: E000, ED100, ED101, E100, E101, E500, E501 have been prepared by me, or under my supervision. I further certify that to the best of my knowledge these Drawings and/or Specifications are as required by and in compliance with Building Codes of the University of Missouri.



CHRISTOPHER ALAN PHILIPP PE-022262

AFF	ABOVE FINISHED FLOOR	DFLM	DECORATIVE FILM	HR	HAND RAIL	OC	ON CENTER	SC	SOLID
ACT	ACOUSTICAL TILE	DEPT	DEPARTMENT	HVAC	HEATING / VENTILATION / AIR CONDITIONING	OPNG	OPENING	SS	SOLID
AWC	ACOUSTICAL WALL COVERING	DTL	DETAIL	HT	HEIGHT	OPP	OPPOSITE	SPEC	SPECIF
AP	ACRYLIC / RESINOUS PANEL	DIA	DIAMETER	HID	HIGH IMPACT DOOR	OD	OVERFLOW DRAIN	SQ	SQUAR
ADJ	AD JACENT	DIM	DIMENSION	HPR	HIGH PERFORMANCE RESIN	OFCI	OWNER FURNISHED, CONTRACTER INSTALLED	SQ FT	SQUAR
AGGR	AGGREGATE	DW	DISHWASHER	HC	HOUOWCORE			STC	STAINE
		DEP		НМ	HOLLOW METAL	0101	O THER FOR IGNED, O THER ING! TEED	1722	
						P	ΡΔΙΝΙΤ	STI	STEEL
								STL ST\/	
		DVVG	DRAWING					STOP	STORE
		F	E A ST		HOUR			STOR	STORA
			EAGU	INI	INCU			STRUCT	STREET
		EA						SIRUCI	SIKUC
ARCH	ARCHITECT / ARCHITECTURAL	EB	EDGE BANDING	INCL	INCLUDE(DED), (SION)	PFI		202b	2025EL
AVE	AVENUE	ELEV	ELEVATION	INFO		PIB	PORCELAIN TILE BASE		TI OK
		ELEC	ELECTRIC (AL)	IB	INTEGRAL BASE	PWI	PORCELAIN WALL IILE	IS	IACKA
BRS	BACKER ROD & SEALANI	ЕM	EMERGENCY	ISB	INTEGRAL SINK BOWL	PSF	Pounds per square foot	IB	TACK B
3SMT	BASEMENT	ENGR	ENGINEER	INT	INTERIOR	PSI	Pounds per square inch	TV	TELEVIS
BLK	BLOCK	EP	EPOXY PAINT			PCS	POURED COATING SYSTEM	TRZ	TERRAZ
BLKG	BLOCKING	EPF	EPXOY / POURED	JT	JOINT	PROP	PROPERTY	TLT	TOILET
BLVD	BOULEVARD	EQ	FLOORING			PPF	PVC FREE PLANK FLOORING	TLT PTN	TOILET
BLDG	BUILDING	EST	EQUAL	LAB	LABORATORY	PS	PVC FREE SHEET	T&G	TONGI
3R	BUMPER RAIL	EXIST	ESTIMATE	LAM	LAMINATE(D)			ΤO	TOP O
		ETR	existing	LAV	LAVATORY	QTY	QUANTITY	TYP	TYPICA
CPT	CARPET	EJ	EXISTING TO REMAIN	LVT	LAY-IN VINYL CEILING TILE	QT	QUARRY TILE		
CPTT	CARPET TILE	EXP	EXPANSION JOINT	LH	LEFT HAND	QTB	QUARRY TILE BASE	UL	UNDER
СВ	CARPET BASE	EXT	exposed	LT	LIGHT	Q	QUARTZ	UNO	UNLESS
CLK	CAULK(ING)		EXTERIOR	LWT	LIGHTWEIGHT	QCT	QUARTZ COMPOSITION TILE		
CLNG	CEILING	FWP		LWC	LIGHT WEIGHT CONCRETE	QS	QUARTZ SURFACING	VNR	VENEE
CFT	CERAMIC FLOOR THE	FPM	FABRIC WRAPPED PANEL	IVC.	LOW VOLUME CHANGE			VFRT	VERTIC
CT	CFRAMIC TILE	FIN	FFFT PER MINUTE	IB	POUND OR (#)	RAD	RADIUS	VCC	VINYI
°wt		FFF		LD		RCF		VCT	VINYI
∩R	CHAIR RAII	FFI		MEG	MANILIFACTURE(FR)	REF	REFERENCE	VET	VINYI
N R		FF		MB		RE		VPF	VINYI
	CLOSET	FEC		2414			REFLECTED CELLING PLAN	VWC	VINVI
SLO3		FUC		MAG				VVVC	VIINIL
								MSC	
								WOLA	VV ALINO
						KD DD	REJILIENI DAJE		VVALN-
		FD	FIRE HOSE CABINEI	MED				WP WDC	VV ALL I
		FI		MED		REV	REVISION(S), REVISED	WPS	WALL I
	CONSTRUCTION	FIG	FLOOR(ING)	MIL	METAL, MATERIAL	RD	ROOF DRAIN	WC	WAIER
CONI	CONTINUOUS OR CONTINUE	FND	FLOOR DRAIN	ML	METAL LAMINATE	RM	ROOM	WH	WAIER
CONIR	CONIRACI(OR)	FUR	FOOT / FEET	MI	MILLWORK IILE	RO	ROUGH OPENING	WR	WELD
Cl	CONTROL JOINT	FUT	FOOTING	MIN	MINIMUM	RB	RUBBER BASE	W	WEST
CG	CORNER GUARD		FOUNDATION	MISC	MISCELLANEOUS	RS	RUBBER SHEET	WF	WIDE F
CORR	CORRUGATED	GA	FURRED(ING)			RT	RUBBER TILE	WT	WINDO
CR	CRASH RAIL	GC	FUTURE	NF	NO FINISH			W/	WITH
CRM	CROWN MOLDING	GL		NOM	NOMINAL	SCHED	SCHEDULE	W/O	WITHO
CFM	CUBIC FEET PER MINUTE	GLBK	GAGE, GAUGE	Ν	NORTH	SCRN	SCREEN	WD	WOOD
CU FT	CUBIC FOOT	GWT	GENTERAL CONTRACT(OR)	NIC	NOT IN CONTRACT	SC	SEALED CONCRETE	WDS	WOOD
CU IN	CUBIC INCH	GD	GLASS / GLAZING	NTS	NOT TO SCALE	SEC	SECTION	WF	WOOD
CU YD	CUBIC YARD	GVL	GLASS BLOCK			SHT	SHEET	WS	WOOD
CC	CUBICLE CURTAIN	GR	GLASS WALL TILE			SVT	SHEET VINYL FLOORING	WV	WOOD
		GYP BD	GRADE, GRADING			SIM	SIMILAR		
			GRAVEL			S	South		
			GROUT			-			
			GYPSUM BOARD						

ABBREVIATIONS LIST







INFECTION CONTROL LEGEND:

-RB-RB- INFECTION CONTROL BARRIER | RIGID BARRIER - MODULAR SYSTEM THE BARRIER SHALL EXTEND FROM THE FLOOR TO THE CEILING AND SHALL BE CONSTRUCTED UTILIZING 3-5/8"METAL STUDS AND 1/2" OR 5/8" GYPSUM BOARD ON THE CLEAN SIDE OF THE STUDS. THE metal studs shall be placed at no less than 16" and no MORE THAN 24" O.C. THE SEAMS AND JOINTS ON THE GYPSUM BOARD MUST BE SEALED WITH AN APPROVED TAPE OR WITH JOINT COMPOUND/TAPE. THE BARRIER SHALL BE ADEQUATELY SEALED AND MAINTAINED AT THE FLOOR AND CEILING CONNECTIONS THROUGHOUT THE PROJECT TO PREVENT THE MIGRATION OF DUST FROM THE WORK AREA INTO ADJACENT OCCUPIED AREAS. AIR FILTRATION EQUIPMENT EXHAUST/VENT HOSE MAY PASS THROUGH THE UPPER PORTION OF THE BARRIER. THE PENETRATION/OPENING FOR THE EXHAUST/VENT HOSE SHALL BE ADEQUATELY SEALED AND MAINTAINED THROUGHOUT THE PROJECT. THE BARRIER SHALL BE EQUIPPED WITH A DOOR/FRAME ASSEMBLY. THE ASSEMBLY IS NOT REQUIRED TO BE FIRE-RATED, HOWEVER, MUST BE HINGED SWING-TYPE, A MINIMUM WIDTH OF 36" AND BE SOLID WOOD OR METAL CLAD WITH A METAL FRAME. THE DOOR SHALL BE EQUIPPED WITH A COMMERCIAL GRADE LEVER HANDLE WITH A REMOVABLE KEY CORE. THE HARDWARE MUST BE POSITIVE LATCHING AND ACCEPT A BEST 7-PIN CORE, WHICH WILL BE PROVIDED AND INSTALLED BY UNIVERSITY OF MISSOURI HEALTHCARE. A DOOR SWEEP MAY BE REQUIRED. THE BARRIER DOOR SHALL REMAIN CLOSED AND LOCKED DURING THE WORK PERIOD. THE BARRIER SHALL ALSO INCLUDE A BARRIER CONSTRUCTED OF 6 OR 10-MIL FIRE-RESISTANT POLYETHYLENE EXTENDING FROM THE CEILING TO DECK DIRECTLY ABOVE THE RIGID BARRIER. IF NECESSARY, NON-COMBUSTIBLE COMPONENTS SHALL BE UTILIZED TO SUPPORT THE POLYETHYLENE. THE BARRIER SHALL BE ADEQUATELY SEALED AT THE DECK AND CEILING CONNECTIONS AND AT ALL PENETRATIONS IN THE BARRIER TO PREVENT THE MIGRATION OF DUST FROM THE WORK AREA INTO ADJACENT AREAS -RB-RB- INFECTION CONTROL BARRIER | RIGID BARRIER - DRYWALL THE BARRIER SHALL BE ACHIEVED UTILIZING AN APPROVED MODULAR SYSTEM. THE SYSTEM SHALL BE COMPOSED OF ALUMINUM FRAMING EQUIPPED WITH WALL, CEILING AND FLOOR PANELS. THE SYSTEM SHALL BE EQUIPPED WITH MAGNETIC SEALS THAT ATTACH THE SYSTEM TO THE METAL DOOR FRAME ASSEMBLY. THE SYSTEM SHALL BE EQUIPPED WITH AN INTEGRATED DOOR

> PANEL AND AN INTEGRATED AIR MANAGEMENT PANEL TO ACCEPT A NEGATIVE AIR EXHAUST DISCHARGE HOSE AND BE EQUIPPED WITH A MAGNAHELIC NEGATIVE AIR INDICATOR. THE DOOR SHALL BE EQUIPPED WITH A COMMERCIAL GRADE LEVER HANDLE WITH A REMOVABLE KEY CORE. THE HARDWARE MUST BE POSITIVE LATCHING AND ACCEPT A BEST 7-PIN CORE, WHICH WILL BE PROVIDED AND INSTALLED BY UNIVERSITY OF MISSOURI HEALTHCARE. THE BARRIER SHALL ALSO INCLUDE A BARRIER CONSTRUCTED OF 6 OR 10-MIL FIRE-RESISTANT POLYETHYLENE EXTENDING FROM THE

CEILING TO DECK DIRECTLY ABOVE THE MODULAR BARRIER. IF NECESSARY, NON-COMBUSTIBLE COMPONENTS SHALL BE UTILIZED TO SUPPORT THE POLYETHYLENE. THE BARRIER SHALL BE ADEQUATELY SEALED AT THE DECK AND CEILING CONNECTIONS AND AT ALL PENETRATIONS IN THE BARRIER TO PREVENT THE MIGRATION OF DUST FROM THE WORK AREA INTO ADJACENT

AREAS.

-EW------EW INFECTION CONTROL BARRIER | EXISTING WALL THE BARRIER SHALL BE ACHIEVED UTILIZING AN EXISTING WALL ASSEMBLY AS AN INFECTION CONTROL BARRIER. IF THE ASSEMBLY DOES NOT EXTEND TO THE DECK ABOVE, A BARRIER CONSTRUCTED OF 6-MIL FIRE RESISTANT POLYETHYLENE SHALL BE INSTALLED EXTENDING FROM THE CEILING/TOP OF WALL ASSEMBLY TO THE DECK ABOVE. IF NECESSARY, NON-COMBUSTIBLE COMPONENTS MAY BE UTILIZED TO SUPPORT THE POLYETHYLENE. THE BARRIER SHALL BE ADEQUATELY SEALED AT THE DECK, CEILING AND TOP OF WALL ASSEMBLY CONNECTIONS AND AT ALL PENETRATIONS IN THE BARRIER. THE POLYETHYLENE BARRIER SHALL BE MAINTAINED THROUGHOUT THE PROJECT TO PREVENT THE MIGRATION OF DUST FROM THE WORK AREA INTO ADJACENT OCCUPIED AREAS. DOOR OPENINGS IN THE ASSEMBLY, NOT BEING UTILIZED AS A CONTROLLED ACCESS POINT INTO THE PROJECT AREA, SHALL BE SEALED UTILIZING OPENING PROTECTIVES (OP-5/OP-6) CRITERIA.

> OP-5: THE BARRIER SHALL BE CONSTRUCTED OF 6 OR 10-MIL FIRE-RESISTANT POLYETHYLENE, BE INSTALLED ON BOTH SIDES OF THE DOOR OPENING, AND COVER THE OPENING COMPLETELY. THE BARRIER SHALL BE ADEQUATELY SEALED AROUND THE PERIMETER OF THE DOOR OPENING AND MAINTAINED THROUGHOUT THE PROJECT TO PREVENT THE MIGRATION OF DUST FROM THE WORK AREA INTO ADJACENT OCCUPIED AREAS. THE DOOR SHALL REMAIN CLOSED THROUGHOUT THE PROJECT AND THERE SHALL BE NO PENETRATIONS IN THE BARRIER.

> OP-6:THE BARRIER SHALL BE CONSTRUCTED OF 6 OR 10-MIL FIRE-RESISTANT POLYETHYLENE, BE INSTALLED ON BOTH SIDES OF THE DOOR OPENING, AND COVER THE OPENING COMPLETELY. THE BARRIER SHALL BE ADEQUATELY SEALED AROUND THE PERIMETER OF THE DOOR OPENING AND THE PERIMETER OF THE DOOR SHALL BE SEALED WITH TAPE. THE BARRIERS AND TAPE ON THE DOOR SHALL BE MAINTAINED THROUGHOUT THE PROJECT TO PREVENT THE MIGRATION OF DUST FROM THE WORK AREA INTO ADJACENT OCCUPIED AREAS. THE DOOR SHALL REMAIN CLOSED THROUGHOUT THE PROJECT AND THERE SHALL BE NO PENETRATIONS IN THE BARRIER

INFECTION CONTROL PLAN KEYNOTES:

(1) FLOOR TO BE PATCHED AND REPAIRED AFTER NORMAL BUSINESS HOURS





-AREA OF WORK



MO Certificate of Authority Number A-2011037290 Project Team:

ROSS & BARUZZINI, INC. 6 SOUTH OLD ORCHARD | ST. LOUIS, MO 63119













STUDS, TYPICAL. 7. ALL OFCI ITEMS LOCATIONS ARE TO BE COORDINATED WITH THE OWNER. 8. FIELD VERIFY EXISTING INTERIOR WALLS GO TO DECK.

CDESIGNGROUP 12101 W 110th Street, Suite 100 Overland Park, KS 66210 913.232.2123

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BID SET















-AREA OF WORK



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ROSS & BARUZZINI, INC. 6 South old orchard | st. louis, mo 63119



<u>GENERAL</u>	SYMBOLS
T	TEMPERATURE SENSOR
$(T)_{I}$	TEMPERATURE SENSOR WITH INSULATED SUB-BASE
\bigcirc_{G}	TEMPERATURE SENSOR WITH GUARD
H	HUMIDITY SENSOR
0	OCCUPANCY SENSOR
R	REFRIGERANT SENSOR
P	PRESSURE SENSOR
S##	SENSOR: CO = CARBON MONOXIDE CO2 = CARBON DIOXIDE NG = NATURAL GAS
AMS	AIRFLOW MEASURING STATION
S-1 100	- TYPE OF SERVICE:S = SUPPLY R = RETURN - SCHEDULE E = EXHAUST D T = TRANSFER - AIR QUANTITY IN CFM
#	KEYED NOTE
•	INTERFACE, EXISTING TO NEW
1 M101	—PLAN NUMBER —SHEET WHERE LOCATED
1 M101	—SECTION NUMBER —SHEET WHERE LOCATED
AHU 1	-EQUIPMENT DESIGNATION -UNIT NUMBER
<u>AHU-1</u>	EXISTING EQUIPMENT DESIGNATION
	-DAMPER TYPE DESIGNATION -UNIT NUMBER

DUCT SYSTEM SYMBOLS

	NEW WORK
	EXISTING TO REMAIN
$\frac{2}{12 \times 12}$	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN (CLEAR INSIDE, ADJUST FOR LINER)
<u>12ø</u>	ROUND DUCT SIZE, (ACTUAL SIZE INDICATED)
12x10ø	SPIRAL FLAT-OVAL DUCT SIZE, FIRST FIGURE IS SIDE SHOWN (ACTUAL SIZE INDICATED)
	ACCESS PANEL, TOP OR SIDE
	FLEXIBLE DUCT CONNECTION
	CHANGE OF ELEVATION - RISE (R) OR DROP (D)
	TURNING VANES
 ₹/}	DEMO TO BE REMOVED
₹ III III	MOTORIZED DAMPER
	GRAVITY BACKDRAFT DAMPER
	MANUAL VOLUME DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	FIRE/SMOKE DAMPER
Att All	FLEXIBLE DUCT
\bowtie	SUPPLY AND OUTSIDE AIR SECTION UP
	SUPPLY AND OUTSIDE AIR SECTION DOWN
\square	RETURN AIR SECTION UP
	RETURN AIR SECTION DOWN
\geq	EXHAUST AIR SECTION UP
	EXHAUST AIR SECTION DOWN
←	FLOW ARROW DOWNSTREAM OF FAN
∢ 1	FLOW ARROW UPSTREAM OF FAN
	SUPPLY DIFFUSER AS SCHEDULED. ARROWS INDICATE DIRECTION OF AIR DISCHARGE. IF NO ARROWS ARE SHOWN ON PLAN, DEFAULT IS A 4-WAY THROW.
$\dot{\square}$	RETURN GRILLE OR REGISTER AS SCHEDULED
	EXHAUST GRILLE OR REGISTER AS SCHEDULED
	SLOT DIFFUSER AS SCHEDULED. ARROWS INDICATE DIRECTION OF AIR DISCHARGE. IF NO ARROWS ARE SHOWN ON PLAN, DEFAULT IS 2-WAY THROW.
[→	SIDEWALL DIFFUSER AS SCHEDULED
【 ◄1	SIDEWALL RETURN OR EXHAUST AS SCHEDULED

<u>PIPE LINE S</u>	<u>YMBOLS</u>	
		SHUT OFF VALVE (SEE SPECIFICATION FOR TYP
——————————————————————————————————————		GATE VALVE
		BALL VALVE
<u>i</u>		BUTTERFLY VALVE
†		VALVE IN RISE (SEE SPECIFICATIONS FOR TY
×		MULTI-PURPOSE PUMP DISCHARGE VALVE
^ _		CHECK VALVE
\\$		GLOBE VALVE
		SOLENOID VALVE
¢		PRESSURE REDUCING V/ (HYDRONIC)
		PRESSURE REGULATING VALVE (STEAM)
——————————————————————————————————————		CALIBRATED - ORIFACE BALANCING VALVE
		ACTIVE FLOW - LIMITING
, ,		PLUG VALVE
		IN-LINE PUMP
		Y - PATTERN STRAINER
, `		
*		UNION
<u></u> м		AIR VENT (M - MANUAL,
×		RELIEF VALVE
¥		VACUUM BREAKER
		PRESSURE AND TEMPERATURE TEST
Q		THERMOMETER
Q		PRESSURE GAGE WITH (
		FLEX PIPE COUPLING
¥		
		PITCH DOWN IN
		MOTORIZED BUTTERFLY
	EINE DETAIL	VALVE
 0		ELBOM DOMN
		ELBOW UP
		TEE DOWN
		TEE UP
]		САР
		CONCENTRIC REDUCER/INCREASER
7 _		ECCENTRIC REDUCER/INCREASER
<u> </u>		FLANGE
	<u> .</u>	DEMO TO BE REMOVED
	<u>)159:</u>	
	IACERAMMATIC IN NA	

- REQUIRED WHETHER SHOWN OR NOT.
- REPRESENTATIVE. CONSTRUCTION.
- INCLUDING ALL HANGERS AND SUPPORTS.
- BY THIS CONTRACTOR.

<u>LS</u>		PIPE SYSTE	MABBREVIATIONS	E	QUIPMENT DESIGNATION	GENERAL ABBREVIATION	<u> IS</u>		NTINUED
	SHUT OFF VALVE (SEE SPECIFICATION FOR TYPE)			AC	AIR CURTAIN	A AIR OR AMP (PER CONTEXT)		IPLV	INTEGRATED PART-LOAD VALUE
	GATE VALVE	CA	COMPRESSED AIR	ACC ACU	AIR COOLED CONDENSER AIR CONDITIONING UNIT	ACC ACCESSORIES AD ACCESS DOOR		ISP JS	INTERNAL STATIC PRESSURE JOIST SPACE
	BALL VALVE	CD	CONDENSATE (STEAM) DRAIN	AF AHU	AIR FILTER AIR HANDLING UNIT	AFF ABOVE FINISHED FLOOR AFS AIR FLOW SWITCH		KW L	KILOWATTS LENGTH
		CF	CHEMICAL FEED	AS B	AIR SEPARATOR BOILER	AHRI AIR CONDITIONING, HEATING, AND REFRIGERATION AI ANALOG SIGNAL INPUT		LAT LB(S)	LEAVING AIR TEMPERATURE POUNDS
	BUTTERFLY VALVE	CHR-CHR-	CHILLED/HOT WATER RETURN	BCU CAV	BLOWER COIL UNIT CONSTANT AIR VOLUME	AMB AMBIENT AO ANALOG SIGNAL OUTPUT		LF LRA	LINEAR FEET LOCKED ROTOR AMPS
	VALVE IN RISE (SEE SPECIFICATIONS FOR TYPE)	CHS	CHILLED/HOT WATER SUPPLY	CB CC	CHILLED BEAM COOLING COIL	AP ACCESS PANEL APD AIR PRESSURE DROP		LS LVL	LIGHT SPACE LEVEL
	MULTI-PURPOSE PUMP			CFP CH	CHEMICAL FEED PUMP CHILLER	APLV APPLICATION PART LOAD VALUE APPROX APPROXIMATE		LWT MAN	LEAVING WATER TEMPERATURE MANUAL
				CP CRAC	CONDENSER WATER PUMP COMPUTER ROOM AIR CONDITIONING UNIT	ARCH ARCHITECTURE/ARCHITECT AUX AUXILIARY		MANU MAX	MANUFACTURER MAXIMUM
		CWR		CRP CSG	CONDENSATE RETURN PUMP CLEAN STEAM GENERATOR	AV AUTOMATIC VENT AVG AVERAGE		MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
	GLOBE VALVE	CWS	CHILLED WATER SUPPLY	CT	COOLING TOWER FILTER	BDD BACK DRAFT DAMPER BEC BELOW EINISHED CEILING		MCC	MOTOR CONTROL CENTER
	SOLENOID VALVE	D	DRAIN	CU		BFP BACKFLOW PREVENTER BHP BRAKE HORSEPOWER		MERV	MINIMUM EFFICIENCY REPORTING VALUE (ASHRA
		E	EQUALIZING LINE	CVR		BI BINARY SIGNAL INPUT BMS BIJU DING MANAGEMENT SYSTEM		MIN	MANOFACTORER MINIMUM OR MINUTE (PER CONTEXT)
		FOF	FUEL OIL FILL	DFH	DEAERATING FEEDWATER HEATER	BO BINARY SIGNAL OUTPUT		MTL	MOUNTED
	VALVE (STEAM)	FOR	FUEL OIL RETURN	EF	EXHAUST FAN	BOD BOTTOM OF BEAM BOD BOTTOM OF DUCT		NC	NORMALLY CLOSED OR NOISE CRITERIA (PER CO
	CALIBRATED - ORIFACE BALANCING VALVE	FOS-	FUEL OIL SUPPLY	EJ ERU	EXPANSION JOINT ENERGY RECOVERY UNIT	BOP BOTTOM OF PIPE BS BEAM SPACE		NIC NO	NOT IN CONTRACT NORMALLY OPEN OR NUMBER (PER CONTEXT)
	ACTIVE FLOW - LIMITING VALVE	FOV	FUEL OIL VENT	EVC	EXPANSION TANK EVAPORATIVE COOLER	BTU BRITISH THERMAL UNIT BTUH BRITISH THERMAL UNITS PER HOUR		NOM NPLV	NOMINAL NON-STANDARD PART LOAD VALUE
		G	NATURAL GAS	F FAV	FAN FUME AIR VALVE	BWE BAKED WHITE ENAMEL CAP CAPACITY		NPSH NTS	NET POSITIVE SUCTION HEAD NOT TO SCALE
	PLUG VALVE	GLR		FC FCU	FLUID COOLER FAN COIL UNIT	CAV CONSTANT AIR VOLUME CFH CUBIC FEET PER HOUR		OA OBD	OUTSIDE AIR OPPOSED BLADE DAMPER
	IN-LINE PUMP		REFRIGERANT HOT GAS	FD FSD	FIRE DAMPER COMBINATION FIRE/SMOKE DAMPER	CFM CUBIC FEET PER MINUTE CI CAST IRON		OC OD	ON CENTER OUTSIDE DIAMETER
	Y - PATTERN STRAINER	HPR	HIGH PRESSURE CONDENSATE RETURN (100 PSIG)	FT FTR	FLASH TANK FIN-TUBE RADIATION	CLG COOLING DUCT (COLD DUCT) CO CLEAN OUT		OT PA	OIL TRAP PIPE ANCHOR
	Y - PATTERN STRAINER	HPS	HIGH PRESSURE STEAM SUPPLY (100 PSIG)	FTU GP	FAN TERMINAL UNIT GLYCOL PUMP	COMP COMPRESSOR CONC CONCRETE		PBD PD	PARALLEL BLADE DAMPER PRESSURE DROP
	W/ BLOWDOWN VALVE	HW	DOMESTIC HOT WATER	GV H	GRAVITY VENTILATOR HUMIDIFIER	COND CONDENSATE CONN CONNECTION		PENT PH	PENTHOUSE
	UNION	HWR	HEATING WATER RETURN	HC	HEATING COIL HOOD EXHAUST VALVE	CORR CORRIDOR		PHC	
	AIR VENT (M - MANUAL,	HWS	HEATING WATER SUPPLY	HPU		D DEPTH			
		LPG	LIQUEFIED PETROLEUM GAS	HWP	HEAT RECOVERY ON THE HEAT RECOVERY ON THE HEAT RECOVERY ON THE HEAT RECOVERY ON THE HEAT RECOVERY OF THE HEAT RECO	DBA A-WEIGHTED DECIBELS		PRESS	PRESSURE
	RELIEF VALVE	LPR	LOW PRESSURE CONDENSATE RETURN (15 PSIG)			DEG DEGREES		PRV PSI	PRESSURE REGULATING VALVE POUNDS PER SQUARE INCH
			LOW PRESSURE STEAM SUPPLY (15 PSIG) MEDIUM PRESSURE CONDENSATE	MAU	MARE-OP AIR UNIT MOTORIZED DAMPER	DEG F DEGREES FARRENHEIT DES DESIGN		PSIA PSIG	POUNDS PER SQUARE INCH ABSOLUTE POUNDS PER SQUARE INCH GAUGE
	PRESSURE AND TEMPERATURE TEST PORT	MPR-MPR-	RETURN (60 PSIG)	PAC	PUMP PACKAGED AIR CONDITIONING UNIT	DIA DIAMETER DIM DIMENSION		QTY RA	QUANTITY RETURN AIR
		MU	MAKE-UP WATER (NON-POTABLE)	PCWP PG	PRIMARY CHILLED WATER PUMP PIPE GUIDE	DISCH DISCHARGE DIV DIVISION		RAD RD	RADIATED ROOF DRAIN
	THERMOMETER	PC	PUMPED CONDENSATE	PHWP PHX	PRIMARY HEATING WATER PUMP PLATE HEAT EXCHANGER	DN DOWN DP DIFFERENTIAL PRESSURE SENSOR		REFR REQ	REFRIGERANT REQUIRED
	PRESSURE GAGE WITH COCK	PD	PUMP DISCHARGE	PRV RF	PRESSURE REGULATING VALVE RETURN FAN	DPSDIFFERENTIAL PRESSURE SWITCHDPTDIFFERENTIAL PRESSURE TRANSMITTER		RH RLA	RELATIVE HUMIDITY RUNNING LOAD AMPS
	FLEX PIPE COUPLING	PCWR	PRIMARY CHILLED WATER RETURN	RHC RP	TERMINAL REHEAT COIL RADIANT PANEL	DTL DETAIL DWG(S) DRAWING(S)		RM RND	ROOM ROUND
	EXPANSION JOINT	PCWS	PRIMARY CHILLED WATER SUPPLY	RTU SAV	ROOFTOP UNIT SUPPLY AIR VALVE	EA EXHAUST AIR OR EACH (PER CONTEXT) EAT ENTERING AIR TEMPERATURE		RPM SA	REVOLUTIONS PER MINUTE SUPPLY AIR
		PHWR	PRIMARY HEATING WATER RETURN	SCWP SD	SECONDARY CHILLED WATER PUMP SMOKE DAMPER	EER ENERGY EFFICIENT RATIO EFF EFFICIENCY		SAN SEC'N	SANITARY
	PIPE ANCHOR	PHWS-	PRIMARY HEATING WATER SUPPLY	SF SHWP	SUPPLY FAN SECONDARY HEATING WATER PUMP	ELEC ELECTRIC FLEV ELEVATION		SEER	SEASONAL ENERGY EFFICIENCY RATIO
	PIPE GUIDE		REFRIGERANT LIQUID	ST	STEAM TRAP	EQ EQUAL ESP EXTERNAL STATIC PRESSURE		SF	SENSIBLE SQUARE FOOT
	PITCH DOWN IN	RS RS	REFRIGERANT SUCTION	UH		EVB ENTERING AIR WET BULB TEMPERATURE		SHT	SENSIBLE HEAT SHEET
	DIRECTION OF ARROW			WCC	WATER COOLED CONDENSER	EXH EXHAUST		SOL	SOUND SOLENOID
	FLOW ARROW	scws-	SECONDARY CHILLED WATER SUPPLY			EXIST, EX EXISTING EXT EXTERNAL		SP SPD	STATIC PRESSURE STATIC PRESSURE DIFFERENTIAL
	WATER METER	SHWR	SECONDARY HEATING WATER RETURN			F FARKENRELL F&T FLOAT AND THERMOSTATIC		SPT SQ	STATIC PRESSURE TRANSMITTER SQUARE
	STEAM TRAP	shws	SECONDARY HEATING WATER SUPPLY			FC FLEXIBLE CONNECTION FD FLOOR DRAIN		SST STL	STAINLESS STEEL STEEL
		SRV	STEAM RELIEF VENT			FUC FIRE DEPARTMENT CONNECTION FIN FINISHED		STM T&P	STEAM TEMPERATURE AND PRESSURE
	TWO-WAY CONTROL VALVE	V	VENT			FLR FLOOR FPF FINS PER FOOT		TC TD	TEMPERATURE CONTROL THERMODYNAMIC OR TEMPERATURE DIFFERENTI
	THREE-WAY CONTROL VALVE					FPMFEET PER MINUTEFSFLOW SWITCH		TDH TEMP	TOTAL DYNAMIC HEAD TEMPERATURE
						FT FEET FT-HD HEAD IN FEET		TOT TPD	TOTAL TOTAL PRESSURE DROP
TAIL						GA GAUGE GAL GALLONS		TSP TYP	TOTAL STATIC PRESSURE TYPICAL
<u></u>						GALV GALVANIZED GC GENERAL CONTRACTOR		UC UG	UNDERCUT DOOR UNDERGROUND
Ø	ELBOW DOWN					GPH GALLONS PER HOUR GPM GALLONS PER MINUTE		UNO V	UNLESS NOTED OTHERWISE
D	ELBOW UP					H HEIGHT HD HEAD		VAC VD	
-						HEV HOSE END VALVE		VEL	
						HP HORSEPOWER		VERI	VERTICAL VARIABLE FREQUENCY DRIVE
	TEE UP					HTG HEATING DUCT (HOT DECK)		VOL VTR	VOLUME VENT THRU ROOF
_1	САР					HVAC REATING, VENTILATING & AIR CONDITIONING HW HOT WATER		vv W/	WATT OR WIDTH (PER CONTEXT) WITH
-	CONCENTRIC					HZ HERIZ IB INVERTED BUCKET		W/O WB	WITHOUT WET BULB
	REDUCER/INCREASER					IE INVERTELEVATION IN INCH/INCHES		WC WG	WATER COLUMN WATER GAUGE
	REDUCER/INCREASER					INDIC INDICATOR		WPD WT	WATER PRESSURE DIFFERENTIAL WEIGHT
	FLANGE								

THESE PLANS ARE DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL BE PREPARED TO MAKE SOME ALTERATIONS TO THE EXACT LOCATION OF DUCTWORK, PIPING AND EQUIPMENT FROM THE LOCATION INDICATED ON THESE DRAWINGS TO FIT ACTUAL JOB CONDITIONS. 2. ALL ELBOWS, FITTINGS, ETC., IN PIPING AND DUCTWORK REQUIRED TO CLEAR ALL JOB OBSTRUCTIONS ARE NOT NECESSARILY INDICATED. ALL NECESSARY TRANSITIONS, FITTINGS AND OFFSETS ARE BECAUSE OF THE LIMITED SPACE AVAILABLE TO INSTALL ALL OF THE MECHANICAL WORK, COORDINATION BETWEEN THE VARIOUS TRADES IS OF THE UTMOST IMPORTANCE. SEE SPECIFICATION 230100 FOR REQUIRED COORDINATION DRAWINGS. 4. THE CONTRACTOR SHALL COORDINATE STAGING AND SCHEDULING WITH THE OWNER'S 5. EXISTING CONDITIONS ARE BASED ON INFORMATION OBTAINED FROM PREVIOUS CONSTRUCTION DOCUMENTS AND INFORMAL FIELD OBSERVATION AND SHALL NOT BE CONSTITUTED AS "AS BUILT." THE CONTRACTOR SHALL FIELD-VERIFY EXISTING CONDITIONS BEFORE THE ONSET OF 6. DEMOLISH ALL PIPING, DUCTWORK EQUIPMENT, ETC., SHOWN TO BE REMOVED, IN ITS ENTIRETY,

WHERE CONTRACTOR IS REQUIRED TO CONCEAL NEW WORK, REMOVE OR MODIFY EXISTING CONSTRUCTION OR EQUIPMENT, OR ATTACH TO EXISTING CONSTRUCTION, THE CONTRACTOR SHALL REPAIR OR REPLACE EXISTING CONSTRUCTION AND MATERIALS TO MATCH CONDITIONS AT THE ONSET OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND REPLACE EXISTING CEILINGS AND WALLS REQUIRED FOR INSTALLATION OF MECHANICAL SYSTEMS. 8. THE OWNER SHALL MAINTAIN ALL SALVAGE RIGHTS OF EQUIPMENT AND MATERIALS REMOVED. ALL EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES

COMPLIANCE WITH ALL LOCAL CODE REQUIREMENTS AND THE REQUIREMENTS OF SPECIFICATION SECTION SEISMIC PROTECTION.

10. ALL WORK SHALL BE INSTALLED PER THE REFERENCE DETAILS, REGARDLESS OF WHETHER OR NOT THE DETAILS ARE CALLED OUT ON THE PLANS. SEE SHEET M500. 11. PROVIDE VENTS AT ALL HYDRONIC PIPING HIGH POINTS, AND DRAINS AT ALL PIPING LOW POINTS,

- REGARDLESS OF WHETHER SHOWN OR NOT. 12. DO NOT SCALE THE LOCATION OF HVAC CEILING ELEMENTS, SUCH AS AIR INLETS AND OUTLETS, FROM THE M-SERIES DRAWINGS. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT HVAC CEILING ELEMENT LOCATIONS. REFLECTED CEILING PLANS GOVERN THE LOCATION OF DIFFUSERS, REGISTERS, AND GRILLES. M-SERIES DRAWINGS GOVERN TYPE, STYLE, AND SIZE OF DIFFUSERS,
- REGISTERS, AND GRILLES. 13. ALL DUCTWORK SHALL COMPLY WITH "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," 3RD EDITION, SMACNA 2005, EXCEPT WHERE MORE RESTRICTIVE REQUIREMENTS ARE SPECIFIED. ANY PLAN REFERENCES TO "SMACNA FIGURE ----" REFERS TO THIS STANDARD. SEE
- SPECIFICATIONS FOR SCHEDULE OF DUCT PRESSURE CLASS AND SEAL CLASS. 14. IN GENERAL, THE FINAL FLEX DUCT RUNOUT TO EACH DIFFUSER, REGISTER, OR GRILLE IS NOT SIZED ON PLANS. FLEX DUCT RUNOUT SIZE SHALL MATCH AIR OUTLET NECK SIZE, UNO.
- 15. IT IS THE INTENT OF THESE DRAWINGS THAT A MANUAL BALANCING DAMPER BE PROVIDED AT EVERY INDIVIDUAL DUCTED CONNECTION TO AN AIR DEVICE, UNLESS A BALANCING DAMPER IS SCHEDULED TO BE FURNISHED WITH AIR DEVICE. VAV BOXES WITH SINGLE DIFFUSERS ARE NOT REQUIRED TO HAVE A BALANCING DAMPER.
- 16. ALL EXISTING TEMPERATURE CONTROLS THAT ARE BEING DEMOLISHED OR DISABLED AS WORK OF THIS CONTRACT SHALL BE COMPLETELY REMOVED FROM BUILDING.

9. CONTRACTOR SHALL PROVIDE SEISMIC BRACING AND MOUNTING OF EQUIPMENT AND MATERIALS IN 17. THE CONTRACTOR SHALL CONNECT THE NEW HVAC SYSTEM TO THE OWNER'S EXISTING BUILDING CONTROL SYSTEM. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.









IMAGE 1



<u>IMAGE 2</u>



IMAGE 3



IMAGE 4

GENERAL NOTES

. REFER TO SHEET M000 FOR GENERAL NOTES.

KEYED NOTES

- REMOVE EXISTING AIR DEVICES AND DUCTWORK TO POINT SHOWN.
- 2. REMOVE EXISTING NON-DUCTED RETURN GRILLE.
- 3. REMOVE EXISTING RETURN AIR TRANSFER DUCT ABOVE CEILING.
- . CAP EXISTING DUCTWORK AIRTIGHT WITH SHEETMETAL. INSULATE CAP WITH 1-1/2" THICK FOIL FACED DUCT WRAP INSULATION IF DUCT IS SUPPLY DUCT. PROVIDE PROPER VAPOR BARRIER WHERE NEW INSULATION BUTTS EXISTING.
- . PROVIDE TEMPORARY CAP IN EXISTING DUCTWORK UNTIL NEW DUCTWORK IS INSTALLED. EXISTING SYSTEM SERVES MULTIPLE FLOORS AND MUST REMAIN OPERATIONAL AT ALL TIMES.
- 6. EXISTING WALL MOUNTED DDC THERMOSTAT TO REMAIN.
- EXISTING WALL MOUNTED DDC THERMOSTAT TO BE REMOVED AND RELOCATED. CONTACT OWNER **BEFORE DEMOLITION BEGINS. EXISTING THERMOSTATS** TO BE REMOVED BY OWNER. FC BUS SHALL REMAIN INTACT DURING CONSTRUCTION AND ANY EXISTING CONTROL WIRES THAT ARE TOO SHORT SHALL BE RE-PULLED, NOT SPLICED. REFER TO SHEET M100 FOR NEW WORK. ASSOCIATED WITH EXISTING DDC THERMOSTAT. PATCH EXISTING WALL IF EXISTING THERMOSTAT IS REMOVED FROM AN EXISTING WALL THAT IS TO REMAIN.
- . EXISTING RETURN AIR TRANSFER DUCT ABOVE CEILING TO REMAIN. 9. ENGAGE OWNER'S REPRESENTATIVE TO CONTACT
- HOSPITAL OR UNIVERSITY OF MISSOURI ENERGY MANAGEMENT TO CLOSE AIR TERMINAL UNIT DAMPER PRIOR TO STARTING DEMOLITION WORK. EXISTING SYSTEM SERVES MULTIPLE FLOORS AND MUST REMAIN OPERATIONAL AT ALL TIMES.
- 10. EXISTING OPEN-ENDED RETURN AIR DUCT ABOVE CEILING TO REMAIN.
- 11. REMOVE EXISTING SUPPLY DUCTWORK, EXISTING FIRE DAMPER AND EXISTING SUPPLY SIDEWALL AIR DEVICE SERVING EXISTING TELECOM ROOM. EXISTING OPENING TO BE RE-USED AND MODIFIED AS NEEDED FOR NEW SIDE WALL AIR DEVICE. REFER TO IMAGE 3 ON THIS SHEET. REFER TO SHEET M100 FOR NEW WORK.
- 12. EXISTING 16x10 SIDEWALL RETURN AND EXISTING FIRE DAMPER TO BE REMOVED. EXISTING OPENING TO BE RE-USED AND MODIFIED AS NEEDED TO SERVE NEW RETURN SIDE WALL AIR DEVICE. REFER TO IMAGE 4 ON THIS SHEET. REFER TO SHEET M100 FOR NEW WORK.
- 13. EXISTING VAV DDC POWER SUPPLY UNIT ON WALL TO REMAIN.
- 14. CLOSE EXISTING SHUT-OFF VALVES PRIOR TO STARTING ANY DEMOLITION. EXISTING VALVES SERVE ONE AIR TERMINAL UNIT. REFER TO IMAGE 2 ON THIS SHEET.
- 15. CLOSE EXISTING SHUT-OFF VALVES PRIOR TO STARTING ANY DEMOLITION. EXISTING VALVES SERVE ONE AIR TERMINAL UNIT. REFER TO IMAGE 1 ON THIS SHEET.



KEYPLAN





EXISTING AHU DESCRIPTION AND COMPONENTS

THE EXISTING HVAC SYSTEM IS SET UP FOR A STANDARD MEDICAL OFFICE BUILDING. VARIABLE AIRFLOW AIR HANDLING UNITS ARE LOCATED IN THE BASEMENT MECHANICAL ROOM WITHIN THE BUILDING. AHU-1 FEEDS THE WEST HALF OF THE BUILDING AND AHU-2 FEEDS THE EAST HALF OF THE BUILDING. WE WILL FOCUS ON AHU-1 SINCE IT SERVES THE RENOVATION AREA, BUT BOTH UNITS ARE ESSENTIALLY IDENTICAL. THE AIR HANDLING UNITS CONSIST OF THE FOLLOWING COMPONENTS:

- REMOTE RETURN FAN SUSPENDED WITHIN THE MECHANICAL ROOM (40,000 CFM, 3" TSP, 40HP,

SUPPLY AIR IS DUCTED FROM THE AIR HANDLING UNIT AND IS DISTRIBUTED TO MULTIPLE SPACES ON MULTIPLE FLOORS. VAV BOXES WITH HOT WATER REHEAT COILS MODULATE AIRFLOW TO EACH ZONE AND PROVIDE HEATING AT THE ZONE LEVEL FOR TEMPERATURE CONTROL. ALL AIR THAT IS NOT

IMAGE 1

IMAGE 2

GENERAL NOTES

1. REFER TO SHEET M000 FOR GENERAL NOTES.

KEYED NOTES

- NEW LOCATION OF EXISTING WALL MOUNTED DDC THERMOSTAT. CONNECT TO EXISTING ASSOCIATED VAV BOX NOTED ON PLANS. IF EXISTING CONTROL WIRING IS NOT LONG ENOUGH, PROVIDE NEW. SPLICING OF CONTROL WIRING IS PROHIBITED. PATCH WALL TO MATCH EXISTING FINISH. INSTALL AN ADHESIVE LABEL ON THERMOSTAT WITH AIR TERMINAL UNIT LOCATION FROM THERMOSTAT.
- INSTALL NEW OWNER FURNISHED WALL MOUNTED DDC THERMOSTAT ON NEW WALL. INSTALL AN ADHESIVE LABEL ON THERMOSTAT WITH CORRESPONDING AIR TERMINAL UNIT TAG AND AIR TERMINAL UNIT LOCATION FROM THERMOSTAT. LETTERS SHALL BE A MINIMUM 1/8" HIGH. COORDINATE LABEL TYPE AND LETTERING HEIGHT WITH OWNER'S REPRESENTATIVE.
- . EXISTING WALL MOUNTED DDC THERMOSTAT TO REMAIN.
- . NEW NON-DUCTED RETURN GRILLES TO HAVE A 10"x10" LINED SOUND BOOT PER DETAIL 7 ON SHEET M-500. DUCT SIZE NOTED ON PLAN IS SHEETMETAL SIZE.
- . RETURN AIR TRANSFER DUCT WITH 1" DUCT LINER. DUCT SIZE NOTED ON PLAN IS SHEETMETAL SIZE.
- 6. EXISTING RETURN AIR TRANSFER DUCT ABOVE CEILING TO REMAIN.
- PRIOR TO CONNECTING TO EXISTING EXPOSED 3/4" HEATING HOT WATER PIPING, CLOSE EXISTING SHUT-OFF VALVES IN EXISTING NORTH CORRIDOR. EXISTING HEATING HOT WATER SYSTEM MUST REMAIN OPERATIONAL AT ALL TIMES.
- 8. CONNECT NEW BRANCH DUCT TO BOTTOM OF EXISTING SUPPLY MAIN.
- 9. CONNECT TO EXISTING OPEN-ENDED RETURN AIR
- DUCT ABOVE CEILING AND EXTEND AS SHOWN. BALANCE FOR 4135 CFM.
- 10. EXISTING VAV DDC POWER SUPPLY ON WALL.

KEYPLAN

BID SET

	AIR DEVICE SCHEDULE													
<u>NOTE</u> 1. 2.	<u>VOTES:</u> 1. COORDINATE REQUIRED BORDER FRAME TYPE WITH ARCHITECTURAL REFLECTED CEILING PLANS. 2. PROVIDE WITH MANUFACTURERS FOIL-FACED MOLDED INSULATION BLANKET ON BACK OF AIR DEVICE.													
MA ID	RK #	MFR.	MODEL	TYPE	LOCATION	SERVICE	NECK SIZE (IN)	FACE SIZE (IN x IN)	MATERIAL	FINISH	MAX TPD (IN WC)	MAX NOISE (NC)	MAX CFM @ LISTED CONDITIONS	NOTES
S	1	TITUS	OMNI	SQUARE PLAQUE	CEILING	SUPPLY AIR	6	24x24	STEEL	WHITE	0.1	30	130	1, 2
S	2	TITUS	OMNI	SQUARE PLAQUE	CEILING	SUPPLY AIR	8	24x24	STEEL	WHITE	0.1	30	280	1, 2
S	3	TITUS	301RL	LOUVERED FACE	WALL	SUPPLY AIR	24x14	26x16	STEEL	WHITE	0.1	30	1285	1, 2
R	1	TITUS	PAR	PERFORATED FACE	CEILING	RETURN AIR	10x10	24x24	STEEL	WHITE	0.1	30	200	1, 2
R	2	TITUS	350RL	LOUVERED FACE	WALL	RETURN AIR	24x12	26x14	STEEL	WHITE	0.1	30	1200	1, 2
E	1	TITUS	PAR	PERFORATED FACE	CEILING	EXHAUST AIR	6	24x24	STEEL	WHITE	0.1	30	130	1, 2

AIR TERMINAL UNIT SCHEDULE

MAX TOTAL PRESSURE DROP SHALL INCLUDE BOX AND REHEAT COIL (WHERE APPLICABLE).

PROVIDE THE NUMBER OF COIL ROWS AS REQUIRED TO MEET SCHEDULED PERFORMANCE AND STILL FALL WITHIN REHEAT COIL PRESSURE DROP LIMITATION. DESIGN SUPPLY AIR TEMPERATURE LIMITS THE TEMPERATURE TO 15 °F ABOVE THE SPACE SETPOINT OF 72 °F TO MAXIMIZE THE VENTILATION EFFECTIVENESS NOTED IN ASHRAE 62.1 - VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY. PROVIDE WITH BOTTOM ACCESS DOOR PER THE SPECIFICATIONS. EXISTING AIR TERMINAL UNIT.

HOT WATER REHEAT WATER FLOW (GPM) IS NOT REQUIRED TO BE REBALANCED. AIRFLOWS ARE BASED ON TESTING, ADJÚSTING, AND BALANCING REPORT FOR PROJECT #CP171063 DATED: JULY 26, 2019. COOLING ONLY AIR TERMINAL UNIT.

ARK						PRIMARY AIF	RFLOW (CFM)								AUXILIARY HO	DT WATER HEAT	ING COIL				MAX NC LEVE	L @ MAX CFM	
#	EXISTING/ NEW	MFR.	MODEL	ТҮРЕ	INLET SIZE (IN)	COOLING MAX	COOLING/ HEATING MIN.	UNOCCUPIED AIRFLOW (CFM)	DESIGN INLET STATIC PRESSURE (IN WC)	PRESSURE DROP (IN WC)	OUTLET DUCT SIZE WxD (IN)	AIRFLOW (CFM)	CAPACITY (MBH)	EAT (°F)	LAT (°F) (3)	EWT/LWT (°F)	FLOW (GPM)	MAX WPD (FT HD) (FT HD)	MAX APD (IN WC) (IN WC)	CONTROL VALVE	DISCHARGE	RADIATED	NC
1-003	EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	12	240	120	60	-	-	16x15	120	-	55	-	180/140	-	-	-	2-WAY	-	-	ę
1-004	EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	12	320	160	80	-	-	16x15	160	-	55	-	180/140	-	-	-	2-WAY	-	-	
1-005	EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	12	100	50	25	-	-	16x15	50	-	55	-	180/140	-	-	-	2-WAY	-	-	
1-008	EXISTING	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	8	240	120	60	-	-	12x10	120	-	55	-	180/140	-	-	-	2-WAY	-	-	į
1-009	EXISTING	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	8	650	325	165	-	-	12x10	325	-	55	-	180/140	-	-	-	2-WAY	-	-	
1-010	EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	10	900	450	225	-	-	14x12 1/2	450	-	55	-	180/140	-	-	-	2-WAY	-	-	5,
1-011	EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	10	770	455	225	-	-	14x12 1/2	455	-	55	-	180/140	-	-	-	2-WAY	-	-	5,
1-012	EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	12	1300	650	325	-	-	16x15	650	-	55	-	180/140	-	-	-	2-WAY	-	-	5,
1-013	NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	6	100	50	25	1.2	0.5	12x8	50	1.7	55	87	180/140	0.5	5.0	0.25	2-WAY	30	30	
1-014	NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	6	100	50	25	1.2	0.5	12x8	50	1.7	55	87	180/140	0.5	5.0	0.25	2-WAY	30	30	
1-015	NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	6	100	50	25	1.2	0.5	12x8	50	1.7	55	87	180/140	0.5	5.0	0.25	2-WAY	30	30	1
1-016	NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	14	1200	1200	1200	1.2	0.5	20x17 1/2	-	-	-	-	-	-	-	-	-	30	30	4

				ROOM		SUPP	LY AIR			OUTSI	DE AIR	OUTSIDE AIR				
ROOM #	ROOM NAME	AREA (SF)		VOLUME	ASHRAE	170-2017	DE	DESIGN		ASHRAE 170-2017		SIGN	ASHRAE 170-2017		DESIGN	
				(CU.FT.)	AC/ HOUR	SA CFM	SA CFM	AC/ HOUR	AC/ HOUR	OA CFM	OA CFM	AC/ HOUR	AC/ HOUR	EA CFM	EA CFM	AC/
0102A	EXAM	104	8'-3"	853	4	57	60	4.2	2	28	28	2	0	0	0	
0102B	EXAM	102	8'-3"	837	4	56	60	4.3	2	28	28	2	0	0	0	
0102C	EXAM	102	8'-3"	837	4	56	60	4.3	2	28	28	2	0	0	0	
0102D	EXAM	127	8'-3"	1042	4	70	70	4.0	2	35	35	2	0	0	0	
0102E	TREADMILL/EXAM	281	8'-3"	2305	4	155	155	4.0	2	77	77	2	0	0	0	
0102F	ECHO	150	8'-3"	1230	4	82	100	4.9	2	41	41	2	0	0	0	
0102G	ECHO	150	8'-3"	1230	4	82	100	4.9	2	41	41	2	0	0	0	
0102H	ECHO	150	8'-3"	1230	4	82	100	4.9	2	41	41	2	0	0	0	
0102L	CLEAN/ EQUIP STORAGE	89	8'-3"	730	4	49	50	4.1	2	25	25	2	0	0	0	
0102M	EXAM	128	8'-3"	1050	4	70	70	4	2	35	35	2	0	0	0	
0102	CORRIDOR	510	8'-3"	4182	0	0	140	2	2	140	140	2	0	0	0	
0102J	TOILET ROOM	63	8'-3"	517	0	0	0	0	0	0	0	0	10	87	90	1

AIR (CHANGE	RATE	SCHEDUL

NOTES:

- FC BUS TO BE CONTINUOUS DAISY CHAIN WITHOUT SPLICES. CONNECTIONS CAN ONLY BE MADE AT CONTROLLERS. SEE PLANS FOR QUANTITY AND LOCATIONS OF VMA CONTROLLERS. 1
- BREAK BUS BETWEEN TWO EXISTING CONNECTED VAV CONTROLLERS AND REROUTE AS SHOWN. BUS CAN BE REROUTED IN MULTIPLE LOCATIONS TO KEEP OVERALL BUS LENGTH SHORT. COORDINATE FC BUS ROUTING AND OUTAGES WITH OWNERS REP.
- CONSTRUCTED BY CABLE-TEK, OR APPROVED EQUIVALENT.

FC COMMUNICATION BUS WIRE SHALL BE 22 AWG, PLENUM RATED, TWISTED SHIELDED, 3 CONDUCTOR, WITH BLUE OUTER CASING, DESCRIPTED AS 22-03 OAS STR PLNM NEON BLU JK DISTRIBUTED BY WINDY CITY WIRE,

NOTES:

	NOTED, ALL CONTROL WORK SHALL BE BY CONTRACTOR.
2.	CAPS FOR VAV DP TEST PORTS MUST BE 1/4" BRASS PLUG
K	EYED NOTES:
1	CONTROLLER WILL BE FURNISHED BY OWNER, INSTALL PROGRAMMING WILL BE DONE BY OWNER.
2	NETWORK SENSOR WILL BE FURNISHED BY OWNER & IN
3	FC COMMUNICATION BUS WIRE SHALL BE 22 AWG, PLEN CASING, DESCRIPTED AS 22-03 OAS STR PLNM NEON BL OR APPROVED EQUIVALENT.
4	INSTALLATION OF OCC SENSOR IS WORK OF DIVISION 2 SHALL BE CONNECTED TO ALL OCC SENSORS AS WORK TERMINAL UNIT THAT SERVES THAT SPACE. IN LOCATIO SHALL BE MONITORED AND TRANSMIT A SIGNAL TO THE WIRED IN PARALLEL.
5	CONTROLLER MUST HAVE A MINIMUM OF 18 INCHES OF
6	VAV SUPPLY TEMP SENSOR 1000 OHM PLATINUM RTD LO INSTALLED, & WIRED TO CONTROLLER BY CONTRACTOR
7	FUSE LOCATED WITHIN 2 FT. OF VMA CONTROLLER.
8	LOW VOLTAGE WIRE BY DIVISION 23. SEE ELECTRICAL I
9	VALVE WITH PROPORTIONAL 0-10 VOLT ACTUATOR OR I

10 SA BUS WIRE SHALL BE 22 AWG, PLENUM RATED, TWISTED SHIELDED, 4 CONDUCTOR.

B VAV BOX CONTROL DIAGRAM WITH REHEAT

1. VMA TERMINAL INCLUDES CONSTANT VOLUME (CV) UNITS & VARIABLE AIR VOLUME (VAV) UNITS. UNLESS OTHERWISE

1/4" BRASS PLUGS.

OWNER, INSTALLED BY CONTRACTOR. CONTROLLER WILL BE JCI MODEL MS-VMA-16XX SERIES.

D BY OWNER & INSTALLED BY CONTRACTOR. NETWORK SENSOR WILL BE JCI NS SERIES. . BE 22 AWG, PLENUM RATED, TWISTED SHIELDED, 3 CONDUCTOR, WITH BLUE OUTER

R PLNM NEON BLU JK DISTRIBUTED BY WINDY CITY WIRE CONSTRUCTED BY CABLE-TEK,

RK OF DIVISION 26, SEE E-SERIES SHEETS FOR FINAL LOCATIONS. A CONTROL CIRCUIT NSORS AS WORK OF DIVISION 23. A CONTROL SIGNAL SHALL BE RELAYED TO THE VAV PACE. IN LOCATIONS WHERE MULTIPLE OCC SENSORS ARE PRESENT, ALL SENSORS A SIGNAL TO THE VAV TERMINAL UNIT WITHIN THAT SPACE. ALL SENSORS SHALL BE

OF 18 INCHES OF ACCESSIBLE CLEARANCE.

PLATINUM RTD LOCATED APPROX. 8 FT. FROM VAV BOX DISCHARGE. PROVIDED, BY CONTRACTOR.

SEE ELECTRICAL DRAWINGS FOR SOURCE.

FACTUATOR OR EQUIVALENT.

MBING SYMBO	OLS & ABBREVIATIONS ARE USED FOR THIS PROJECT	COMM	ON PLUMBING SYMBOLS &		ALL SYMBOLS ARE USED FOR THIS PROJECT	1	PLUMBING GENERAL NOTES
— 20 TF	RAPPED CONNECTION	ΝΟΤΑ		ADA	AMERICANS WITH DISABILITIES ACT	1 1 "	WORK, COORDINATION BETWEEN ALL OTHER TRADES IS OF UTMOST IMPORTANCE.
	FRAINER			AP	ACCESS PANEL	2.	THIS CONTRACTOR SHALL VISIT THE PROJECT SITE AND VERIFY LOCATIONS, ELEVATIONS
—Ø ——— ВА	ALANCING VALVE		- DIRECTION OF FLOW	BP	BOOSTER PUMP		SYSTEMS AND STRUCTURE SHALL BE INVESTIGATED FOR BEST POSSIBLE ROUTING OF
I CI	EANOUT (CO)		BRANCH CONNECTION, BOTTOM	ВТ	BATHTUB		LABORATORY GAS PIPING.
	S & Y GATE VALVE		BRANCH CONNECTION, TOP	BTC	BRANCH TO CONNECTION	3.	THESE PLANS ARE DIAGRAMMATIC IN NATURE SINCE THE ONLY AVAILABLE INFORMATION HAS BEEN OBTAINED FROM EXISTING PLANS, SPECIFICATIONS, AND FIELD SUBVEYS, THE
те	EMPERATURE GAUGE		→ ELBOW, TURNED DOWN	BV	BALANCE VALVE		EXACT LOCATION OF PIPING, FIXTURES AND EQUIPMENT MAY DEVIATE FROM THE
	HERMOSTATIC MIXING VALVE		-o ELBOW TURNED UP	CI	CAST IRON		THIS CONTRACTOR SHALL BE PREPARE TO MAKE ALTERATIONS TO NEW AND/OR
	EDUCED PRESSURE BACKFLOW PREVENTER	→	- SHUTOFF VALVE	со	CLEANOUT		COMPLETE CODE COMPLYING SYSTEM. THIS CONTRACTOR SHALL REPORT, IN WRITING, ANY DISCREPANCIES WHICH PREVENT THE INSTALLATION OF WORK AS SHOWN
	OSE BIBB/WALL HYDRANT	₹	- CHECK VALVE	CSS	CLINICAL SERVICE SINK	1	IF THIS CONTRACTOR DOES NOT CLEARLY UNDERSTAND THESE PLANS OR IS NOT
-AV A0	CID VENT		- PRESSURE REDUCING VALVE	DCVA	DOUBLE CHECK VALVE ASSEMBLY		COMPLETELY SURE OF THEIR MEANING, THIS CONTRACTOR SHOULD OBTAIN THE ENGINEER'S WRITTEN EXPLANATION AND/OR INTERPRETATION PRIOR TO SUBMITTING
AW AG	CID WASTE	Υ <u></u>	PRESSURE GAUGE	DS	DOWNSPOUT		BIDS, SINCE THIS CONTRACTOR WILL BE HELD RIGIDLY TO THE INTERPRETATION OF THE ENGINEER
—D—— DI	RAIN PIPING		- UNION	DW	DISHWASHER	5	IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO REPAIR THE EXISTING SURFACES TO
—DI——— DI	EIONIZED WATER PIPING			DWH	DOMESTIC WATER HEATER	5.	REMAIN WHERE THEIR WORK HAS BEEN COMPLETED. REPAIR SHALL INCLUDE, BUT NOT
-RO-RI	EVERSE OSMOSIS PIPING (RO)	//////////////////////////////////////	EXISTING PIPING TO BE REMOVED	EEW	EMERGENCY EYE WASH		REPAIR, PAINTING, AND PATCHING SHALL BE COMPLETED BY AN APPROPRIATE
 D0	DMESTIC COLD WATER PIPING (CW)		MATCH LINE	ESEW	EMERGENCY SHOWER & EYE WASH	6	THE OWNER SHALL MAINTAIN ALL SALVAGE RIGHTS OF FIXTURES. FOURPMENT AND
 D0	OMESTIC HOT WATER PIPING (HW)	\bullet	CONNECTION TO EXISTING	ESH	EMERGENCY SHOWER	0.	MATERIALS REMOVED, HOWEVER, ALL FIXTURES, EQUIPMENT AND MATERIALS NOT
D0	DMESTIC HOT WATER RETURN PIPING (HWR)	(#	DETAIL DESIGNATION	ET	EXPANSION TANK		DISPOSED OF THE BY THE DEMOLITION CONTRACTOR.
-NPNO	ON-POTABLE WATER PIPING	P501		EWC	ELECTRIC WATER COOLER	7.	CEILING REMOVAL, STORAGE AND REPLACEMENT FOR NEW PIPING INSTALLATION SHALL BE BY THE GENERAL CONTRACTOR
PDPU	JMP DISCHARGE PIPING	X	RISER DESIGNATION	FCO	FLOOR CLEAN OUT	8	IE HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS. THE
—s————————————————————————————————————	ANITARY PIPING	# _/		GCO	GRADE CLEANOUT	0.	CONTRACTOR WILL NOTIFY BUILDING OWNER OF THE HAZARDOUS MATERIAL.
-SSDSSD	JBSOIL DRAINAGE PIPING	#	KEYED NOTE	GD	GARBAGE DISPOSAL	9.	TEMPORARY CONNECTION SHALL BE PROVIDED BY RESPECTIVE PLUMBING AND FIRE PROTECTION CONTRACTORS WHEN EXTENDED INTERRUPTIONS OF SERVICES AND
—ST—S ⁻	FORM PIPING	#	REVISION NOTE	НВ	HOSE BIBB		UTILITIES SUCH AS WATER, WASTE AND FIRE PROTECTION WHICH SERVE OTHER AREAS ARE NECESSARY
-OST	VERFLOW STORM PIPING			HWRP	HOT WATER RETURN PUMP	10	COORDINATE WITH MAINTENANCE PERSONNEL AS TO SOURCE OF UTILITIES AND
—TW— TE	EMPERED WATER	AFF		HWST	HOT WATER STORAGE TANK		TEMPORARILY DISCONNECT OR SHUT OFF SERVICES OR UTILITIES AT NEAREST MAIN. TEMPORARY AND ACCESSIBLE ISOLATION VALVES SHALL BE INSTALLED CLOSE TO THIS
- <u> </u>	ENT PIPING	AHJ	AUTHORITIES HAVING JURISDICTION	IM	ICE MAKER		POINT OF WORK.
E)	KISTING FIXTURE TO BE REMOVED	AP		IW	INDIRECT WASTE	11.	IT IS ESSENTIAL THAT BUILDING OPERATIONS CONTINUE WITH MINIMAL INTERRUPTIONS. IT IS NECESSARY THAT OPERATION OF EXISTING SYSTEMS BE INTERFACED WITH AS
		BOP		LA	LAVATORY		LITTLE DISRUPTION AS POSSIBLE EXCEPT IN AREAS VACATED FOR CONSTRUCTION WORK, WORK WHICH WILL INTERFERE WITH OPERATION OF EXISTING FIRE SUPPRESSION
E	KISTING FIXTURE	DIA	DIAMETER	MB	MOP BASIN		AND PLUMBING SYSTEMS OR WHICH REQUIRE DOWNTIME WILL BE SCHEDULED ONLY AFTER CONSULTATION WITH AND PERMISSION GIVEN BY THE OWNER, ALLOW 10 DAYS
			DOWN	NIC	NOT IN CONTRACT		PRIOR TO ANTICIPATED INTERRUPTION OF SYSTEMS. WORK MAY BE REQUIRED TO BE PERFORMED OUTSIDE NORMAL WORKING HOURS
NI	EW FIXTURE			ОВ	OUTLET BOX	12.	ARCHITECTURAL DEMOLITION DRAWINGS AND SPECIFICATIONS SHALL BE READ IN
		FFE		RD	ROOF DRAIN		CONJUNCTION WITH THESE DRAWINGS.
		GPH		RPZ	REDUCED PRESSURE BACKFLOW PREVENTER	13.	ALL PIPING HANGERS AND SUPPORTS SHALL BE REMOVED ALONG WITH PIPING BEING REMOVED.
	DOR DRAIN/FLOOR SINK (FD/FS)	GPM		S	SANITARY	14.	THE CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH PROJECT'S PHASING
	RCOLATION FOMF			S/S	STAINLESS STEEL		SCHEDULE PRIOR TO COMMENCEMENT OF ANY WORK.
				SH	SHOWER	15.	WHEN PLACING NEW PLUMBING FIXTURES, CONTRACTOR SHALL VERIFY LOCATIONS OF PLUMBING VENTS. OFFSET VENTS THAT TERMINATE WITHIN 25 FEET OF HVAC UNITS
		NC		SK	SINK		OUTDOOR AIR INTAKES. CONTRACTOR SHALL FIELD VERIFY PRIOR TO BID WHERE THE INTERFERENCE'S ARE PRICE ACCORDINGLY OR MAKE ALLOWANCES IN BID.
		PSI		SP	SUMP PUMP	16.	USE CAUTION WHEN SAW-CUTTING THROUGH EXISTING CONCRETE FLOOR OR WALL
		RPM		SS	SANITARY STACK		CONSTRUCTION FOR THE INSTALLATION OF PLUMBING SYSTEMS TO AVOID CUTTING REBAR AT EDGE OF OPENING. LEAVE SUFFICIENT REBAR EXPOSED TO TIE NEW
		RI	ROUGH-IN	SSK	SHOP SINK		REINFORCING REPLACEMENT CONCRETE AND/OR OTHER STRUCTURAL ATTACHMENTS FOR NEW CONSTRUCTION.
		SOV	SHUTOFE VALVE	SW	SOFT WATER	17.	CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REVISIONS, TRANSITIONS, OFFSETS,
		трн		TMV	THERMOSTATIC MIXING VALVE		ETC., TO AVOID DUCTWORK, PIPING, EQUIPMENT OR STRUCTURE NEW OR EXISTING AND TO MAKE A COMPLETE AND FUNCTIONING SYSTEM.
		VIF	VERIEY IN FIELD	UR	URINAL		
				V	VENT		
				VB	VACUUM BREAKER		
				VS	VENT STACK		
				VTR	VENT THRU ROOF		
				W	WASTE		
				WC	WATER CLOSET		
				WCO	WALL CLEANOUT		
				WD	WASHER DRAIN		
				WH	WALL HYDRANT		
				WHA	WATER HAMMER ARRESTOR		
				WM	WATER METER		
				WS	WASTE STACK		
				WSV	WASTE STACK VENT		
				YCO	YARD CLEANOUT		

PLUMBING - GROUND FLOOR DEMO PLAN

KEYED NOTES

- . EXISTING SINK AND ALL PIPING TO BE DEMOLISHED BACK TO THEIR MAINS AND CAPPED. EXISTING ICE MAKER CUP SINK AND ALL ASSOCIATED PIPING TO DEMOLISHED.
- EXISTING CW/HW SUPPLY LINES ARE CAPPED DEA LEGS FROM A PREVIOUS PROJECT. THESE SHALL DEMOLISHED.

ED E O BE	
AD _ BE	

KEYED NOTES

. SAW CUT EXISITNG CONCRETE SLAB FOR INSTALLATION OF NEW WASTE PIPING SERVING GROUND FLOOR PLUMBING FIXTURES. PATCH CONCRETE FLOOR TO MATCH EXISTING SURROUNDING SURFACES.

PLUMBING - GROUND FLOOR PLAN

KEYED NOTES

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. SEE "CALIBRATED BALANCING VALVE" DETAIL ON SHEET P500 FOR MORE INFORMATION.

PLUMBING - DOMESTIC WATER ISOMETRIC

FLOOR CLEANOUT

3 SENSOR OPERATED FAUCET

		PLUMBING FIXTURE SCHEDULE											
PLAN MARK	DESCRIPTION	MANUFACTURER	MODEL	TRIM	DRAIN / TRAP	SUPPLIES	CARRIER	HOT WATER	COLD WATER	TEMPERED WATER	SANITARY / WASTE	VENT	NOTES
L-1	WALL HUNG LAVATORY	AMERICAN STANDARD	LUCERNE 0355.012	CHICAGO FAUCETS MODEL 116.606.AB.1; 0.5GPM SENSORED FAUCET; BATTERY POWERED.	GRID DRAIN/CHROME PLATED P-TRAP	CHICAGO FAUCET LOOSE KEY ANGLE STOPS AND RISERS	JAY R. SMITH	1/2"	1/2"	-	2"	2"	INSULATE SUPPLY AND WASTE PIPING WITH TRUBRO #102 WHITE INSULATION KIT WITH #105 OFFSET DRAIN INSULATION KIT. 0.5 GPM NON-AERATED OUTLET. PROVIDE WITH ASSE 1070 THERMOSTATIC MIXING VALVE.
SK-1	SINGLE BOWL STAINLESS STEEL SINK (EXAM ROOMS)	ELKAY	DLR191910PD	CHICAGO FAUCETS MODEL 201-AGN8AE36-317AB; 1.5GPM MANUAL FAUCET	GRID DRAIN/CHROME PLATED P-TRAP	CHICAGO FAUCET LOOSE KEY ANGLE STOPS AND RISERS	-	1/2"	1/2"	-	2"		PROVIDE WITH ASSE 1070 THERMOSTATIC MIXING VALVE.
SK-2	SINGLE BOWL STAINLESS STEEL SINK (STAFF LOUNGE)	ELKAY	DLR191910PD	SYMMONS S-23-2-W-1.5 MANUAL KITCHEN FAUCET	GRID DRAIN/CHROME PLATED P-TRAP	CHICAGO FAUCET LOOSE KEY ANGLE STOPS AND RISERS	-	1/2"	1/2"	-	2"		PROVIDE WITH ASSE 1070 THERMOSTATIC MIXING VALVE.
WC-1	FLOOR MOUNT FLOOR OUTLET WATER CLOSET (ADA)	AMERICAN STANDARD	MADERA FLOWISE 3461.001	SLOAN ROYAL 111 SFSM-1.6 SENSOR FLUSHOMETER; BATTERY POWERED.	INTEGRAL	-	-	-	1 1/4"	-	4"	2"	ADA.

SECTION THRU HANGER

REFER TO SPECS FOR INSULATION AND HANGER SUPPORTS.

2INSULATED PIPE HANGER SUPPORT

	DRAIN SCHEDULE											
PLAN MARK	DESCRIPTION	MANUFACTURER	MODEL	BODY	STRAINER	NOTES						
FD-1	ROUND FLOOR DRAIN	SIOUX CHIEF	832-35D-NR	CAST IRON	NICKEL-BRONZE	PROVIDE TRAP PRIMER CONNECTION						

3 SPRINKLER HEAD LOCATION

24" X 48"

12" X 48"

				NOTEC		- \	_ vv.
FIRE V BUILDI	/ATCH NG AND	OCCUPANT SAF	ETY - INTER	RUPTION OF	FIRE PROTE	ECTION SE	RVICE
1.	DURIN SYSTE PERSC	G THE TIME THAT M IS DOWN AND ONNEL ONSITE TO	FIRE PROT OUT OF CO KEEP A "FI	ECTION REN MMISSION, TH RE WATCH" (OVATION WO	ORK IS BE DTECTION ILITY.	ING PE CONTF
2.	A FIRE ACT, C USED WITHIN	PROTECTION WANT SITUATION INS TO DESCRIBE A DENTIFIER A D	ATCH IS IMP TIGATING A DEDICATED D AREA.	LEMENTED T N INCREASEI PERSON OR I	o ensure 1 D risk to pi Persons W	THE FIRE S ERSONS (HOSE SO	SAFETY OR PRC LE RES
3.	IN THE PROTE ESTAB ONLY ,	OPINION OF THE ECTION SYSTEM T BLISH A FIRE WAT JOB DUTY DURING	FIRE AND L THAT IS OUT CH. FOR TH G THE TIME	IFE-SAFETY OF SERVICE IE PERSON C PERIOD OF T	GROUP (FLS FOR MORE R PERSONS HE FIRE PR	6) OR FM (6 THAN 4 H S ASSIGNE OTECTION	COBAL
4.	IN ADE Equip Panel 901.7).	DITION, THE BUILD MENT MUST BE T . AND THE FIRE D	NG OWNEI AGGED 'OU EPARTMEN	R IS REQUIRE T OF SERVICI T CONNECTIC	D TO HAVE . E'. AN OUT (DN (REFERE	AN IMPAIF OF SERVIC NCE INTE	RMENT CE TAG RNATIC
5.	FIRE V PERSC	VATCH PERSONN DNS PERFORMING	EL ARE TO I G THE FIRE	KEEP WATCH WATCH ARE I	FOR FIRES	IN THE GE TED TO P	ENERAL ERFOR
6.	FIRE V IN ITS	VATCH PERSONN USE.	EL ARE TO I	HAVE FIRE EX	TINGUISHIN	IG EQUIPN	/ENT R
7.	THE Q LEVEL	UANTITY OF PERS , AND ROOM OF T	SONNEL INV HE FIRE AR	OLVED IN TH	E FIRE WAT	CH IS TO I	3E ADE
8.	IN GEN A. B. C.	NERAL, A FIRE WA NOTIFY OCCUP/ NOTIFY THE CEI ACTIVATE FIRE AND SHUT DOW	TCH IS TO F ANTS TO EV NTRAL MON PROTECTIC N FANS.	FULFILL THE I ACUATE WHE ITORING STA N SYSTEMS I	NTENT OF N EN THERE IS TION TO INIT N ORDER TO	IFPA-72 AS 3 A FIRE IN TIATE EME D RELEAS	3 FOLLO I THE B ERGENO E DOOF

AND PERMISSION GIVEN BY OWNER **10** DAYS PRIOR TO ANTICIPATED INTERRUPTION OF SYSTEMS. SUCH WORK MAY BE REQUIRED TO BE PERFORMED OUTSIDE OF NORMAL WORKING HOURS. REFER TO FIRE WATCH NOTES FOR DISRUPTION OF FIRE SPRINKLER SYSTEMS IN OCCUPIED BUILDINGS WHEN DISRUPTION EXCEEDS 4 HOURS.

€ INDICATES CENTERLINE OF SPRINKLER HEAD

FO

COMMON SYMBOLS	FIRE PROTECTION & ABBREVIATIONS	FIRE PROTEC	TION SYMBOLS & ABBREVIATIONS ALL SYMBOLS ARE USED FOR THIS PROJECT
NOT ALL SYMBC	OLS ARE USED FOR THIS PROJECT	ф аал	AIR VENT (AUTOMATIC)
	- DIRECTION OF FLOW		
8	BRANCH CONNECTION, BOTTOM	[FT]	
ዋ	BRANCH CONNECTION, TOP		
	➡ ELBOW, TURNED DOWN		FIRE DEPARTMENT VALVE (FDV)
	- ● ELBOW TURNED UP	FW	- FLOW SWITCH
→→→→	 SHUTOFF VALVE 	∆	- PREACTION VALVE
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- CHECK VALVE	́п.	
<b>₽</b> ⊘	<ul> <li>PRESSURE REDUCING VALVE</li> </ul>		PRESSURE RELIEF VALVE
T	PRESSURE GAUGE		SOLENOID VALVE
	- UNION	DD	- DRAIN LINE
	─∃ PIPING CAP	DRY	- DRY PIPE
· / / / / / / / / / / / / / / / / / / /	✓ EXISTING PIPING TO BE REMOVED	FF	- FIRE MAIN (BULK)
	MATCH LINE	SPR	- SPRINKLER MAIN/BRANCH PIPING
$\bigcirc$	CONNECTION TO EXISTING	Y	DRIP CONNECTION
(#)		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	FIRE DEPARTMENT CONNECTION-FREE STANDING
P501	DETAIL DESIGNATION		FIRE DEPARTMENT CONNECTION-WALL MOUNT
X		<del></del>	FLUSH TYPE FIRE DEPARTMENT INLET CONNECTION
			FIRE PUMP TEST HEADER-WALL MOUNT
#	REVISION NOTE	A Z A	FIRE PUMP TEST HEADER-FREE STANDING
			EXSTING SPRINKLER HEAD
AFF			EXISTING SPRINKLER HEAD TO BE REMOVED
AHJ	AUTHORITIES HAVING JURISDICTION		SPRINKLER HEAD (SEE SCHEDULE FOR TYPE)
AP			SIDEWALL SPRINKLER HEAD (SEE SCHEDULE FOR TYPE)
BOP	BOTTOM OF PIPE		
DIA	DIAMETER	AP	ACCESS PANEL
DN	DOWN	AC	AIR COMPRESSOR
EX OR EXIST	EXISTING	AS	AUTOMATIC SPRINKLERS
FFE	FINISHED FLOOR ELEVATION	BFP	BACKFLOW PREVENTER
GPH	GALLONS PER HOUR	BTC	BRANCH TO CONNECTION
GPM	GALLONS PER MINUTE	CI	CAST IRON
HP	HORSEPOWER	DCVA	DOUBLE CHECK VALVE ASSEMBLY
IE OR INV. ELEV	INVERT ELEVATION	DPV	DRY PIPE VALVE
NC	NORMALLY CLOSED	DSP	DRY STANDPIPE PIPING
NTS	NOT TO SCALE	DSV	DRY STANDPIPE VALVE
PSI	POUNDS PER SQUARE INCH	FDC	FIRE DPARTMENT CONNECTION
RPM	REVOLUTIONS PER MINUTE	FDV	FIRE DEPARTMENT VALVE
RI	ROUGH-IN	FEC	FIRE EXTINGUISHER CABINET
SOV	SHUTOFF VALVE	FHC	FIRE HOSE CABINET
TDH	TOTAL DYNAMIC HEAD	FP	FIRE PUMP
VIF	VERIFY IN FIELD	FPC	FIRE PUMP CONTROLLER
		FPTH	FIRE PUMP TEST HEADER
		JP	JOCKEY PUMP
		JPC	JOCKEY PUMP CONTROLLER
		NAS	NO AUTOMATIC SPRINKLERS

### FIRE STOPPING NOTES

NOT IN CONTRACT

SUMP PUMP

TAMPER SWITCH

POST INDICATOR VALVE

- MATERIALS: USE ONLY FIRE STOP PRODUCTS THAT HAVE BEEN UL 1479, ASTM E-814, OR UL 2079 TESTED FOR SPECIFIC FIRE RATE CONSTRUCTION CONDITIONS CONFORMING TO CONSTRUCTION ASSEMBLY TYPE, PENETRATING ITEM TYPE, ANNULAR SPACE REQUIREMENTS, AND FIRE RATING INVOLVED FOR EACH SEPARATE INSTANCE.
- FOR SINGLE PENETRATIONS: A READY-TO-USE LATEX BASED INTUMESCENT SEALANT IS REQUIRED TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY PENETRATED. THE SEALANT MUST HAVE UL LISTING FOR BOTH SLEEVED AND NON-SLEEVED APPLICATIONS.
- FOR LARGE OPENINGS: CONTAINING MULTIPLE PENETRATIONS (2 OR MORE), A READY-TO-USE FOAM INTUMESCENT BLOCK MATERIAL MUST BE ABLE TO BE REMOVED AND REINSTALLED WITHOUT COMPROMISING FIRE PROTECTION INTEGRITY. COMPLY WITH MANUFACTURER'S RECOMMENDED PROCEDURES AND PRECAUTIONS. DO NOT USE DAMAGED OR EXPIRED MATERIALS.
- MANUFACTURERS: JOHNS MANVILLE INTERNATIONAL, 3M BRAND, CSD SEALING SYSTEMS, HILTI, CIBA-GEIGY, HEAVY-DUTY/NEALSON. REFER TO DIVISION 7 FOR FURTHER REQUIREMENTS.

### FIRE PROTECTION DEMOLITION NOTES ALL PIPING HANGERS AND SUPPORTS SHALL BE REMOVED ALONG WITH THE PIPING.

PROTECT PIPING WHICH IS NOT TO BE REMOVED FROM DAMAGE, DIRT AND DEBRIS.

NIC

PIV

TS

- ALL FIRE EQUIPMENT AND MATERIALS NOT CLAIMED BY THE OWNER SHALL BE REMOVED FROM THE PREMISES AND PROPERLY DISPOSED OF BY THE DEMOLITION CONTRACTOR.
- THE CONTRACTOR SHALL PLUG OR CAP ALL PIPING OUTLETS NOT INTENDED FOR REUSE.
- CEILING REMOVAL, STORAGE, AND REPLACEMENT WILL BE MADE BY THE CONTRACTOR AND IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO REPAIR THE EXISTING SURFACES TO REMAIN WHERE THEIR WORK HAS BEEN COMPLETED. REPAIR INCLUDES BUT SHALL NOT BE LIMITED TO, ANY EXISTING WALL, CEILING, OR FLOOR THAT IS SCHEDULED TO REMAIN. REPAIR, PAINTING, AND PATCHING SHALL BE COMPLETED BY AN APPROPRIATE CONTRACTOR QUALIFIED FOR THIS TYPE OF WORK.
- IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, THE CONTRACTOR WILL NOTIFY BUILDING OWNER OF THE HAZARDOUS MATERIAL.
- ARCHITECTURAL DEMOLITION DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH THESE DRAWINGS.
- THE CONTRACTOR SHALL COORDINATE DEMOLITION WORK WITH PROJECT'S PHASING SCHEDULE PRIOR TO ANY WORK

![](_page_21_Picture_23.jpeg)

![](_page_22_Figure_1.jpeg)

# GENERAL SHEET NOTES

- A. FIRE SPRINKLER SYSTEM OUTAGES SHALL BE LIMITED IN TIME AND APPROVED BY UMHC. B. ONLY SCHEDULE 40 PIPING SHALL BE USED.
- CONTRACTOR SHALL VERFIY EXISTING SPRINKLER PIPING SCHEDULE AND NOTIFY OWNER BEFORE WORK COMMENCES.
- C. ONLY FULLY CONCEALED-TYPE SPRINKLER HEADS SHALL BE USED. D. COORDINATE ALL SPRINKLER HEAD LOCATIONS WITH
- CEILING LAYOUT, NEW ARCHITECTURAL FEATURES, CEILING-MOUNTED DEVICES, AND ACROSS ALL DISCIPLINES.
- E. FLEXIBLE SPRINKLER HEADS ARE NOT ALLOWED FOR THIS PROJECT.
- F. FIRE PROTECTION SHOP DRAWINGS TO BE PROVIDED, SIGNED AND SEALED BY A LICENSE FIRE PROTECTION ENGINEER IN THE STATE OF MISSOURI.
- G. TEMPORARY FIRE SPRINKLER PROTECTION SHALL BE PROVIDED.

# **KEYED NOTES**

1. EXISTING SPRINKLER HEAD AND ARM OVER PIPING TO BE DEMOLISHED.

#

2. EXISTING PIPING IS SCHEDULE 10 BLACK STEEL PIPING.

![](_page_22_Picture_15.jpeg)

![](_page_23_Figure_0.jpeg)

 FIRE PROTECTION - GROUND FLOOR PLAN

 Image: North state

 8'
 4'

 0'
 8'

![](_page_23_Picture_2.jpeg)

![](_page_23_Figure_3.jpeg)

- B. ONLY SCHEDULE 40 PIPING SHALL BE USED. CONTRACTOR SHALL VERFIY EXISTING SPRINKLER PIPING SCHEDULE AND NOTIFY OWNER BEFORE WORK
- COMMENCES. C. ONLY FULLY CONCEALED-TYPE SPRINKLER HEADS SHALL BE USED.
- D. COORDINATE ALL SPRINKLER HEAD LOCATIONS WITH CEILING LAYOUT, NEW ARCHITECTURAL FEATURES, CEILING-MOUNTED DEVICES, AND ACROSS ALL DISCIPLINES.
- E. FLEXIBLE SPRINKLER HEADS ARE NOT ALLOWED FOR THIS PROJECT. F. FIRE PROTECTION SHOP DRAWINGS TO BE PROVIDED, SIGNED AND SEALED BY A LICENSE FIRE PROTECTION
- ENGINEER IN THE STATE OF MISSOURI. G. TEMPORARY FIRE SPRINKLER PROTECTION SHALL BE PROVIDED.

# **KEYED NOTES**

#

- AREA TO BE CONSIDERED LIGHT HAZARD WITH A SPRINKLER DISCHARGE DENSITY OF 0.10 GPM/SQ.FT. FOR THE MOST HYDRAULICALLY REMOTE 1500 SQ.FT. AND A HOSE STREAM OF 100 GPM. CONTRACTOR SHALL PROVIDE A COMPLETE CODE COMPLIANT AUTOMATIC WET PIPE SYSTEM. SPRINKLER SPACING SHALL BE BASED ON LISTED VALUE AND DISTANCES ESTABLISHED BY NFPA AND FM.
- AREA TO BE CONSIDERED ORDINARY HAZARD, GROUP 1 WITH A SPRINKLER DISCHARGE DENSITY OF 0.15 GPM/SQ.FT FOR THE MOST HYDRAULICALLY REMOTE 1500 SQ. FT. AND A HOSE STREAM OF 250 GPM. CONTRACTOR SHALL PROVIDE A COMPLETE CODE COMPLIANT AUTOMATIC WET PIPE SYSTEM. SPRINKLER SPACING SHALL BE BASED ON LISTED VALUE AND DISTANCES ESTABLISHED BY NFPA.

![](_page_23_Picture_12.jpeg)

1.	MAKE ALL INSTALLATIONS IN ACCORDANCE WITH THE [AMERICANS WITH DISABILITIES AG ACCESSIBILITY GUIDELINES (ADAAG)] AND/OR ARCHITECTURAL BARRIERS ACT (ABA).
2.	MOUNTING HEIGHTS INDICATED WITHIN PLANS AND SCHEDULES ARE DIMENSIONED TO THE CENTER LINE OF THE DEVICE, EQUIPMENT, LUMINAIRE, ETC. UNLESS OTHERWISE NOTED.
3.	COORDINATE EXACT EQUIPMENT LOCATIONS WITH OTHER TRADES. EQUIPMENT LOCATIONS SHOWN ON ELECTRICAL PLANS ARE DIAGRAMMATICAL ONLY AND MIGHT NC BE EXACT.
4.	CIRCUIT IDENTIFICATION NUMBERS BESIDE ELECTRICAL DEVICES AND CONNECTION POINTS ON PLANS CORRESPOND TO AN OVERCURRENT DEVICE IN THE DESIGNATED PANELBOARD. NOTE ALL CIRCUIT NUMBER CHANGES MADE IN THE FIELD AT EACH ELECTRICAL DEVICE AND CONNECTION POINT. ALSO CORRECT THE DIRECTORIES AND DEVICE MARKINGS AT PANELBOARDS, SWITCHBOARDS AND SWITCHGEAR TO ACCURATELY REFLECT THE AS-BUILT CONDITIONS.
5.	INSTALL EMERGENCY AND EXIT LUMINAIRE WIRING IN A SEPARATE RACEWAY FROM THA OF ANY NORMAL POWER DEVICE.
6.	CONCEAL ALL CONDUIT IN WALLS, PARTITIONS, ABOVE CEILINGS, AND IN FLOOR SLABS, ETC. UNLESS OTHERWISE INDICATED ON THE PLANS OR IN THE SPECIFICATIONS. CONDUIT ROUTED IN MECHANICAL ROOMS, ELECTRICAL ROOMS, AND STORAGE ROOMS WITHOUT CEILINGS MAY BE ROUTED EXPOSED.
7.	COORDINATE VERTICAL CONDUIT ROUTING TO WALL MOUNTED DEVICES TO ENSURE DEVICES LOCATED WITHIN AN 18-INCH HORIZONTAL DIMENSION WILL BE CENTER-ALIGNI VERTICALLY.
8.	CONCEAL ELECTRICAL CONNECTIONS FOR ELECTRIC WATER COOLERS (EWC) BEHIND WATER COOLER ACCESS PLATE OR DIRECTLY BELOW AND CENTERED ON WALL.
9.	FIELD COORDINATE ALL ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT MOUNTIN LOCATIONS TO AVOID ENCROACHMENT OF OPERATION AND ACCESS TO EQUIPMENT FROM OTHER TRADES. COORDINATE THE APPROPRIATE MOUNTING LOCATION WITH TH AFFECTED DISCIPLINES WHEN EQUIPMENT IS SPECIFIED TO BE MOUNTED ONTO THE SURFACE OF ANOTHER DISCIPLINE'S EQUIPMENT.
10.	REPAIR ALL OPENINGS MADE IN EXISTING WALLS, PARTITIONS, ETC TO ACCOMMODATE WORK OF THIS DISCIPLINE TO MATCH THE SURROUNDING CONDITIONS, USING WORKER QUALIFIED IN THE APPROPRIATE TRADE. APPROPRIATELY GROUT OR SEAL ALL CONDUI THROUGH WALLS.
11.	ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS MUS HAVE BEEN TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS.
12.	INSTALL A PERMANENT DIRECTORY ACCORDING TO THE NATIONAL ELECTRICAL CODE, ARTICLE 230 AT EACH SERVICE ENTRANCE AND POWER SOURCE.
13.	PERFORM ALL WELDING ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. FURNISH CERTIFICATES QUALIFYING EACH WELDER TO THE ARCHITECT OR ENGINEER PRIOR TO START OF WORK. THE ARCHITECT OR ENGINEER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT NO ADDITIONAL EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
14.	REPLACE OR REINSTALL ALL PORTIONS OF THE BUILDING (CEILING TILES, WALLS, ETC) REMOVED TO ACCOMMODATE THE INSTALLATION OF ANY ELECTRICAL DEVICE, EQUIPMENT, ETC., USING WORKERS QUALIFIED IN THE APPROPRIATE TRADE.
15.	COORDINATE LUMINAIRE LOCATIONS SUCH THAT LUMINAIRES RUN PARALLEL TO THE FACE OF THE EQUIPMENT AND OVER AISLES BETWEEN EQUIPMENT IN ALL MECHANICAL AND ELECTRICAL EQUIPMENT AREAS. INSTALL AT PROPER LOCATIONS AND HEIGHTS TO PROPERLY ILLUMINATE ALL GAGES. PANELS ELECTRICAL EQUIPMENT, CONTROLS
GE	VALVES, ETC. CHAIN HANGING, STEM HANGING, CHANNEL HANGING, ETC. ARE ACCEPTABLE METHODS. ENERAL DEMOLITION NOTES
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DRAWING REFERENCES	POWER EQUIPMENT
$\frown$	MOTOR : SEE EQUIPMENT DATA SCHEDUI F FOR
# ) PLAN DETAIL REFERENCE TITLE	
# KEYED NOTE DESIGNATION	MAGNETIC STARTER MAGNETIC STARTER WITH DISCONNECT
PLAN NORTH NORTH ARROW	
PLAN MARK	
AHU EQUIPMENT DESIGNATION REFER TO MEP SCHEDULE FOR CIRCUITING AND DEVICE	SWITCHBOARD
LOCATIONS	PANELBOARD (SURFACE)
	PANELBOARD (FLUSH)
E100 ENLARGED PLAN REFERENCE	PIPE WITH ELECTRIC HEAT TRACING
SHEET NUMBER	ELECTRIC HEATING EQUIPMENT
ABBREVIATIONS	T TRANSFORMER
	UPS UNINTERRUPTIBLE POWER SUPPLY SYSTEM
E.C. : ELECTRICAL CONTRACTOR ER : EXISTING RELOCATED	HH HANDHOLE
ETR : EXISTING TO REMAIN EWC : ELECTRIC WATER COOLER	MH MANHOLE
G.C. : GENERAL CONTRACTOR GND : GROUND TYP : TYPICAL	ELECTRICAL SERVICE METER
U.O.N. : UNLESS OTHERWISE NOTED	VFD VARIABLE FREQUENCY DRIVE
	WIRING DEVICES, RECEPTACLES - MISC.
(LIGHT, SOLID LINE)	
NEW WORK BY THIS CONTRACTOR (DARK, SOLID LINE)	2. SUBSCRIPT LEGEND:
EXISTING TO BE REMOVED BY THIS CONTRACTOR (DARK, DASHED LINE, DEMOLITION PLANS)	A: ABOVE COUNTER: MOUNT +6" ABOVE BACKSPLASH OR WORK SURFACE.
	C: CEILING: MOUNT FLUSH WITHIN CEILING TILE OR GYPSUM BOARD. CR: COMPLITER RECEPTACIE: PROVIDE LAREL TO READ:
(DARK, LONG DASHED LINE)	COMPUTER RECEPTACLE. PROVIDE LABEL TO READ: 'COMPUTER'. S: SWITCHED: PROVIDE ONE OUTLET CONTROLLED BY TOGGLE
VIRING PLANS	SWITCH. U: UNDER COUNTER: WITHIN CABINETRY OR CASEWORK.
	A SLASH BETWEEN TWO SUBSCRIPTS INDICATES MULTIPLE PARAMETERS (EXAMPLE:
PROVIDE WIRING REQUIRED BY THE CIRCUITING AND SWITCHING REQUIREMENTS FOR THE PARTICULAR CIRCUITS INVOLVED.	AS DENOTES ABOVE COUNTER MOONTING, CIRCOTT S).
CONDUCTORS IN 3/4" CONDUIT MINIMUM UNLESS INDICATED OTHERWISE. NO SHARED NEUTRALS SHALL BE ALLOWED. A	SHADING INDICATES EMERGENCY POWER
MAXIMUM OF NINE CURRENT-CARRYING CONDUCTORS ARE ALLOWED IN A RACEWAY. NEUTRAL CONDUCTORS ARE ALSO	SPECIAL PURPOSE OUTLET AS NOTED
CONSIDERED CURRENT-CARRYING CONDUCTORS. FOR CIRCUITS EXCEEDING 75'-0" IN LENGTH, PROVIDE THE NEXT LARGER WIRE	
WHERE NUMBER OF CURRENT-CARRYING CONDUCTORS IN A	
RACEWAY EXCEEDS THREE, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED AS SHOWN IN THE ADJUSTMENT	DUPLEX RECEPTACLE OUTLET : INTELLIGENTLY CONTROLLED
FACTOR TABLE IN THE NATIONAL ELECTRIC CODE. LOAD DIVERSITY FACTORS SHALL NOT BE USED IN SIZING CONDUCTORS. NEUTRAL	DOUBLE DUPLEX RECEPTACLE OUTLET
CONDUCTORS SHALL BE COUNTED AS CORRENT-CARRYING CONDUCTORS.	
CONDUIT CAPPED FOR FUTURE.	
CABLE TRAY : TYPE AS NOTED	(SEE TV SYMBOL UNDER "DISTRIBUTED TELEVISION").
BUSWAY	ELECTRICAL CONNECTION: CEILING MOUNTED
HOMERUN TO PANEL OR DESTINATION NOTED	E ELECTRICAL CONNECTION: WALL MOUNTED
HACHURES INDICATE NUMBER OF CONDUCTORS	MANUAL MOTOR STARTER WITH PILOT LIGHT (+48" A.F.F.)
NOTE: LONG HACHURE - NEUTRAL CONDUCTOR	PP POWER POLE
	ACCESS CONTROL SYSTEMS
PHASE CONDUCTOR	
	MAG ELECTRO-MAGNETIC LOCK
	REX REQUEST TO EXIT, TOUCHLESS ACTUATOR: WALL MOUNT AT +48" A.F.F.
	CR CARD READER : WALL MOUNT AT +48" A.F.F.
	PUSHBUTTON : +48" A.F.F. OR AS NOTED
	REFER TO LOW VOLTAGE RESPONSINBILITY MATRIX ON SHEET E100 FOR MORE INFORMATION
	<b> </b>
SECURITY ALARM SYSTEMS	<b> </b>
	<b> </b>
	<b> </b>
AUDIBLE ALARM ONLY	
BUZZER MOUNT AS NOTED	PUBLIC ADDRESS SYSTEMS
BELL MOUNT AS NOTED	
CHIME MOUNT AS NOTED	SPEAKER : WALL MOUNTED 7'-0" OR AS NOTED.
L□       DOOR ALARM JAMB SWITCH MOUNT AS NOTED         □       SECURITY CAMERA	FLUSH VOLUME CONTROL : +48" A.F.F.
	REFER TO LOW VOLTAGE RESPONSINGILITY MATCHY ON SHEET 5400 FOR
MORE INFORMATION.	MORE INFORMATION.

LUMINAIRES	
1. REFER TO LUMINAIRE SCHEDULE FOR LUMINAIRE DESCRIPTIONS.	_
2. "NL" INDICATES UNSWITCHED LUMINAIRE	
3. "SE" DESIGNATION INDICATES LUMINAIRE IS SWITCHED DURING NORMAL OPERATION, BUT UPON LOSS OF POWER, LUMINAIRE REVERTS TO 100%	
OUTPUT VIA BATTERY BALLAST, REGARDLESS OF THE ON/OFF STATUS OF THE LOCAL LIGHTING CONTROL DEVICE. EXTEND AN UNSWITCHED PORTION OF	
CONTACTORS, TO THIS DEVICE.	
4. SHADING LEGEND (APPLICABLE TO 5. LUMAINAIRE DESIGNATION KEY: LUMINAIRE SYMBOLS):	
O NO SHADING: NORMAL POWER A: LUMINAIRE TYPE	
HALF-SHADING: LIFE SAFETY OR BATTERY BACKUP	
a: CONTROLLING SWITCH	
	_
	_
TYPICAL MOUNTING HEIGHT : 48" A.F.F. TO CENTER U.O.N.	
A COMMON GANG BOX WITH A SINGLE, SEAMLESS FACEPLATE.	
3. SUBSCRIPT LEGEND: 2 : TWO-POLE SWITCH	
3 : THREE-WAY SWITCH 4 : FOUR-WAY SWITCH	
D : DIMMER - COORDINATE REQUIREMENTS FOR LUMINAIRE COMPATIBILITY	
C : MOMENTARY CONTACT SWITCH LV : LOW VOLTAGE CONTROL MASTER STATION	
L : LOW VOLTAGE LOCAL SINGLE/PUSH BUTTON STATION	
<ol> <li>REFER TO SPECIFICATION SECTION 26 09 23 FOR ADDITIONAL INFORMATION.</li> </ol>	
\$ SWITCH - TYPE AS INDICATED BY SUBSCRIPT	
CEILING OCCUPANCY DETECTOR : INFRARED SENSOR TYPE.	
CEILING OCCUPANCY DETECTOR : ULTRASONIC TYPE.	
CEILING OCCUPANCY DETECTOR : DUAL TECHNOLOGY TYPE.	
SO WALL MOUNTED SINGLE SWITCH OCCUPANCY SENSOR [PIR][ULTRASONIC][DUAL TECHNOLOGY] TYPE	
SO2 WALL MOUNTED DUAL SWITCH OCCUPANCY SENSOR [PIR][ULTRASONIC][DUAL TECHNOLOGY] TYPE	
CEILING PHOTOCELL	
DT DIGITAL TIMER	
TELECOMMUNICATIONS	
	_
1. TYPICAL MOUNTING HEIGHT: +18" A.F.F. UNLESS OTHERWISE NOTED. PROVIDE OR 4 11/16" SQUARE BOX WITH SINGLE GANG PLASTER RING (VERTICAL).	
2. ALL TELECOMMUNICATION CONDUIT SHALL BE A MINIMUM OF 1-1/4" IN DIAMETER STUBBED TO ACCESSIBLE CORRIDOR CEILING SPACE, UNLESS OTHERWISE NOTED.	
3. ALL TELECOMMUNICATION CABLE SHALL BE OWNER PROVIDED WITH A PLENUM	
CEILINGS SHALL BE SUPPORTED BY J-HOOKS AT EVERY 5'-0" TO NEAREST CABLE TRAYS. PROVIDE INSULATED BUSHINGS ON ALL RACEWAYS.	
4. ALL DATA CABLES SHALL BE CAT 6A, YELLOW IN COLOR, AND TERMINATED BY OWNER	
5. REFER TO LOW VOLTAGE RESPONSIBILITY MATRIX ON E100 FOR MORE INFORMATION.	
<ul> <li>6. SUBSCRIPT LEGEND:</li> <li>A: ABOVE COUNTER - MOUNT +6" ABOVE BACKSPLASH OR WORK SURFACE</li> </ul>	
WITH BOX ORIENTED HORIZONTALLY. C: CEILING MOUNTED - MOUNT FLUSH WITHIN CEILING TILE OR GYPSUM	
CEILING. W: WALL PHONE - MOUNT +48" A.F.F. OR 6" ABOVE WORK SURFACE. PROVIDE MOUNTING LUGS FOR TELEPHONE	
WAP: WIRELESS ACCESS POINT DATA OUTLET - INSTALL ONE (1) OWNER FURNISHED CAT 6A CABLE AND 10-'0" OF SLACK CABLE COILED ABOVE	
ACCESSIBLE CEILING FROM TELECOM ROOM. WIRELESS ACCESS POINTS ARE OWNER FURNISHED, OWNER INSTALLED.	
#: QUANTITY OF OWNER FURNISHED CAT 6A CABLES TO BE INSTALLED BY CONTRACTOR. WHEN NOT INDICATED, THREE (3) CABLES SHALL BE ASSUMED. CABLES SHALL ORIGINATE FROM TELECOMMUNICATION	
- A SLASH BETWEEN TWO SUBSCRIPTS INDICATES MULTIPLE PARAMETERS (EXAMPLE	.:
A/3 DENOTES ABOVE COUNTER MOUNTING, 3 CABLES.)	
TELECOMMUNICATION OUTLET: PROVIDE CONDUIT FOR WIRING AND A	
* SPARE CONDUIT STUBBED TO THE ACCESSIBLE CEILING SPACE WITH BUSHING. PROVIDE 4 POSITION FACEPLATE AND A TOTAL OF (3) ACTIVE	
EZ## PATH PATHWAY: NUMBER SHOWN INDICATES EZ PATH MODEL.	
	┥
JUNCTION AND PULL BOXES	
SHADING INDICATES EMERGENCY POWER	
JUNCTION BOX : CEILING OR FLOOR MOUNTED. SIZE PER N.E.C. REQUIREMENTS.	
JUNCTION BOX : WALL MOUNTED. SIZE PER N.E.C. REQUIREMENTS.	
P PULL BOX	

DE RECESSED ROUGH-IN COMPONENTS CONSISTING OF 4" x 4" x 3.5" E GANG BOX WITH SINGLE GANG MUD RING AND ONE (1) 1" CONDUIT ED TO ABOVE CEILING SPACE WITH BUSHING. PROVIDE J-HOOK SUPF CEILING BETWEEN DEVICE, CORRIDOR FIRE RATED PATHWAY, AND O TO LOW VOLTAGE RESPONSIBILITY MATRIX ON SHEET E100 FOR MOD MATION. EMERGENCY PULL CORD STATION: +30" A.F.F. AT TOILETS, +78" AT SHOWER STATIONS. CORD LENGTH SHALL EXTEND TO +6" A.F.F. EMERGENCY PUSHBUTTON STATION : +44" A.F.F. U.O.N.
TO LOW VOLTAGE RESPONSIBILITY MATRIX ON SHEET E100 FOR MOMATION. MATION. EMERGENCY PULL CORD STATION: +30" A.F.F. AT TOILETS, +78" AT SHOWER STATIONS. CORD LENGTH SHALL EXTEND TO +6" A.F.F. EMERGENCY PUSHBUTTON STATION : +44" A.F.F. U.O.N.
EMERGENCY PULL CORD STATION: +30" A.F.F. AT TOILETS, +78" AT SHOWER STATIONS. CORD LENGTH SHALL EXTEND TO +6" A.F.F. EMERGENCY PUSHBUTTON STATION : +44" A.F.F. U.O.N.
EMERGENCY PUSHBUTTON STATION : +44" A.F.F. U.O.N.
CODE BLUE STATION : +44" A.F.F. U.O.N. WALL MOUNTED DOME LIGHT: MOUNT ABOVE DOOR JAMB,
CENTERED BETWEEN TOP OF DOOR FRAME AND CEILING
TO SPECIFICATIONS SECTION 283111 FOR ADDITIONAL INFORMATION INING TO THE FIRE ALARM SYSTEM.
ING LINE CIRCUITS SHALL BE ROUTED IN A CLASS B CONFIGURATION
SURATION APPLIANCE CIRCUITS SHALL BE ROUTED IN A CLASS B SURATION.
ARM CIRCUITS SHALL BE ROUTED IN CONDUIT WHERE INACCESSIBLE ROUTED ABOVE ACCESSIBLE CEILINGS, FIRE ALARM CIRCUITS SHAL ST OF PLENUM RATED CABLE SUPPORTED EVERY 4'-0" BETWEEN DEV
SUAL DEVICES, THE '#' WITHIN THE SYMBOL CORRESPONDS TO THE
AOUNTED NOTIFICATION DEVICES SHALL BE MOUNTED WITH THE TOP
VICE +90" A.F.F. OR 6" BELOW THE CEILING, WHICHEVER IS LOWER.
FIRE ALARM MANUAL STATION: +48" A.F.F. TO CENTER LINE
WALL MOUNTED SPEAKER
WALL MOUNTED SPEAKER WITH STROBE
WALL MOUNTED STROBE
CEILING MOUNTED SPEAKER WITH STROBE
CEILING MOUNTED WITH STROBE
CEILING MOUNTED SPEAKER
HEAT DETECTOR : FIXED TEMPERATURE
HEAT DETECTOR : RATE OF RISE
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE.
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH SINGLE STATION SMOKE DETECTOR WITH SOUNDER BASE
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH SINGLE STATION SMOKE DETECTOR WITH SOUNDER BASE FIRE ALARM ELECTROMAGNETIC DOOR HOLDER CONTACT IN KITCHEN EXTINGUISING SYSTEM DANIEL FOD
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH SINGLE STATION SMOKE DETECTOR WITH SOUNDER BASE FIRE ALARM ELECTROMAGNETIC DOOR HOLDER CONTACT IN KITCHEN EXTINGUISHING SYSTEM PANEL FOR CONNECTION INTO FIRE ALARM SYSTEM
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH SINGLE STATION SMOKE DETECTOR WITH SOUNDER BASE FIRE ALARM ELECTROMAGNETIC DOOR HOLDER CONTACT IN KITCHEN EXTINGUISHING SYSTEM PANEL FOR CONNECTION INTO FIRE ALARM SYSTEM
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH SINGLE STATION SMOKE DETECTOR WITH SOUNDER BASE FIRE ALARM ELECTROMAGNETIC DOOR HOLDER CONTACT IN KITCHEN EXTINGUISHING SYSTEM PANEL FOR CONNECTION INTO FIRE ALARM SYSTEM END OF LINE RESISTOR
HEAT DETECTOR : RATE OF RISE SMOKE DETECTOR : PHOTOELECTRIC TYPE. DUCT MOUNTED SMOKE DETECTOR : PHOTOELECTRIC TYPE SPRINKLER SYSTEM WATER FLOW SWITCH SPRINKLER SYSTEM TAMPER (SUPERVISORY) SWITCH SPRINKLER SYSTEM ELECTRICAL SOLENOID VALVE EXTINGUISHING SYSTEM PRESSURE SWITCH SINGLE STATION SMOKE DETECTOR WITH SOUNDER BASE FIRE ALARM ELECTROMAGNETIC DOOR HOLDER CONTACT IN KITCHEN EXTINGUISHING SYSTEM PANEL FOR CONNECTION INTO FIRE ALARM SYSTEM END OF LINE RESISTOR ADDRESSABLE CONTROL RELAY ADDRESSABLE MONITOR MODULE

![](_page_24_Picture_4.jpeg)

![](_page_25_Figure_0.jpeg)

![](_page_25_Figure_1.jpeg)

![](_page_25_Figure_4.jpeg)

![](_page_26_Figure_0.jpeg)

### GENERAL NOTES . IN AREAS WHERE DEMOLITION WORK IS NOT SCHEDULED, DISCONNECT, REMOVE, AND SALVAGE EXISTING CEILING MOUNTED DEVICES, LUMINAIRES, ETC. AS REQUIRED TO COMPLETE ABOVE CEILING WORK FOR ALL TRADES. UPON COMPLETION OF CONSTRUCTION, REINSTALL EXISTING CEILING SHALL OPERATE AS THEY DID PRIOR TO CONSTRUCTION. 2. CONTRACTOR SHALL FIELD VERIFY AND REMOVE ALL

- FIRE ALARM DEVICES AND POWER CONNECTIONS ASSOCIATED WITH AHU SHUTDOWN, FIRE/SMOKE OF THIS SCOPE. REMOVED DEVICES SHOULD BE INFORMATION.
- ALL FIRE ALARM CABLE AND CONDUIT SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE.
- 4. RE-SUPPORT ALL EXISTING TO REMAIN ELECTRICAL SUPPORTED BY WALLS SCHEDULED TO BE DEMOLISHED.
- CONTAINING MERCURY. COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS.

![](_page_26_Figure_6.jpeg)

![](_page_26_Picture_7.jpeg)

![](_page_27_Figure_0.jpeg)

ELECTRICAL NEW WORK FLOOR PLAN

## GENERAL NOTES

- REFER TO SHEET E000 FOR ELECTRICAL GENERAL NOTES.
- 2. CIRCUIT NUMBERS ARE FOR REFERENCE AND ARE SHOWN FOR LOADING PURPOSES ONLY. CONTRACTOR TO USE CIRCUITS MADE SPARE FROM DEMOLITION AND AVAILABLE SPARE CIRCUIT BREAKERS IN PANEL NBB AND IF NECESSAY PANEL NBA. CONTRACTOR MAY CONNECT NEW RECEPTACLES TO EXISTING CIRCUITS ALREADY IN ROOMS SO LONG AS THERE ARE NO MORE THAN (8) RECEPTACLES ON A SINGLE CIRCUIT. DEVICES SHOWN ON DEDICATED CIRCUITS TO REMAIN ON DEDICATED CIRCUITS.
- 3. ALL ELECTRICAL CIRCUITS SHOWN ARE CONNECTED TO PANEL NBB UNLESS OTHERWISE NOTED.

### **KEYED NOTES** #

- 1. PROVIDE NEW TAMPER RESISTANT RECEPTACLE IN EXISTING DEVICE BOX AND NEW COVER PLATE. CONNECT TO EXISTING WIRING.
- REMOVE (2) 20A-1P CIRCUIT BREAKERS AND PROVIDE (1) NEW 20A-2P CIRCUIT BREAKER FOR TREADMILL. FIELD VERIFY EXACT CIRCUIT NUMBERS BASED ON CIRCUITS MADE SPARE FROM DEMOLITION. MATCH EXISTING MANUFACTERER AND AIC RATING.

ON ALL ALL		
EEGEND. F: FURNISHED	ON ON SE	
I: INSTALLED	In St	3
GENERAL LOW VOLTAGE ITEMS		
LOW VOLTAGE RACKS	F,I	
RACK CABLE MANAGEMENT	F,I	
CONDUIT SLEEVES		F,I
GROUNDING AND BONDING (GROUND BARS, CONDUCTORS, TERMINATIONS, ETC.)		F,I
CABLE PATHWAYS, CABLE TRAY, LADDER TRAY		F.I
		FI
		F I
		Г,I 
CORE DRILLING FLOOR/WALL SLEEVES		F,I
TELECOMMUNICATIONS SYSTEMS		
FIBER SERVICE AND HORIZONTAL DISTRIBUTION FROM HOSPITAL	F,I	
FIBER SWITCH AND TERMINATIONS	F,I	
EQUIPMENT (SERVERS, SWITCHES, PDU, ETC.)	F,I	
TELECOM ROOM LADDER RACK	F,I	
PATCH PANELS	F,I	
PATCH CABLES	F,I	<u> </u>
HORIZONTAL CABLING AND TERMINATIONS	F	
BACKBOXES AND CONDUITS		F.I
		F 1
		1,1
COMMUNITY ACCESS TELEVISION SYSTEM (CATV)		
CABLE DISTRIBUTION (BETWEEN TELECOM ROOMS)	F,I	
AMPLIFIERS AND SPLITTERS	F,I	
EQUIPMENT: HEAD-END ELECTRONICS	F,I	
HORIZONTAL CABLING AND TERMINATIONS	F	Ι
BACKBOXES AND CONDUITS		F,I
OUTLET FACEPLATES AND TERMINATIONS		F,I
ACCESS CONTROL		
HEAD-END EQUIPMENT	F	
BACKBOXES AND CONDUITS		F.I
DEVICES (CARD READERS KEYPADS ETC.)	FI	
	- ,, 	1
VIDEO SURVEILLANCE		
HEAD-END EQUIPMENT (HARDWARE, SOFTWARE, DISPLAYS, ETC.)	F	1
CAMERAS AND SUPPORTS	F,I	
HORIZONTAL WIRING AND TERMINATIONS	F	I
BACKBOXES AND CONDUITS		F,I
NURSE CALL		
HEAD-END EQUIPMENT, UPS, AND PROGRAMMING	F	I
HORIZONTAL CABLING AND TERMINATIONS	F	1
BACKBOXES AND CONDUITS		F,I
DEVICES	F.I	
INTERCONNECTION WIRING AND TERMINATIONS TO PERIPHERALS	FI	
PUBLIC ADDRESS SYSTEM	╞───	
HEAD-END EQUIPMENT	F,I	
HORIZONTAL CABLING AND TERMINATIONS	F	I
BACKBOXES AND CONDUITS		F,I
SPEAKERS	F,I	
SOUND MASKING SYSTEM - ALTERNATE #7		
SYSTEM CONTROLLER		F,I
HORIZONTAL CABLING AND TERMINATIONS		F,I
	<b>I</b>	

NOTES:

THE PARTY RESPONSIBLE FOR INSTALLING THE RESPECTIVE EQUIPMENT SHALL ALSO BE RESPONSIBLE FOR 1. CONNECTING, PROGRAMMING AND TESTING THE SYSTEM, UNLESS OTHERWISE SPECIFICALLY NOTED. CONTRACTOR TO COORDINATED TESTING WITH ALL THIRD PARTY VENDORS.

ITEMS INDICATED AS FURNISHED AND/OR INSTALLED BY THE OWNER MAY BE PROVIDED BY A THIRD-PARTY VENDOR. CONTRACTOR IS REQUIRED TO COORDINATE ALL INSTALLATIONS.

MOUNTING COMPONENTS AND CONDUITS

SPEAKERS/EMITTERS

REQUIREMENTS.

ALL LINE VOLTAGE RECEPTACLE AND HARD-WIRED CONNECTIONS WILL BE PROVIDED BY THE CONTRACTOR. FIRESTOPPING TO BE PROVIDED BY A SINGLE ENTITY. REFER TO DIVISION 07 SPECIFICATIONS FOR 4

 $2 \log voltage responsibility matrix$ 

![](_page_27_Figure_15.jpeg)

E.I

NORTH

_____

KEYPLAN

![](_page_27_Picture_17.jpeg)

![](_page_27_Picture_18.jpeg)

![](_page_28_Figure_0.jpeg)

![](_page_28_Figure_1.jpeg)

![](_page_28_Figure_2.jpeg)

![](_page_28_Figure_3.jpeg)

![](_page_28_Figure_4.jpeg)

![](_page_28_Picture_5.jpeg)

![](_page_28_Picture_6.jpeg)

![](_page_28_Picture_7.jpeg)

- AREA OF WORK

<u> </u>	1.	
	2	CONTRACTO
	3	REFER TO A
	4.	WHEN INSTA
	5.	ALL RECESS VISIBLE. AL
	6.	ALL LUMINA
	7.	IN ALL MECH GAGES, PAN
	8.	ALL LUMINA
	9.	WHEN LUMI
	10.	REFER TO S
	11.	COMPLETE
	12.	WHEN VARY
	13.	VERIFY COM
PLAN MARK		
RA	2'X2 MOI LEN	2', 3-1/4" TALL, LDED COMPO IS, HIGH REFL
RB	4" F Ref Pol	OUND, 5 1/2" LECTOR, DIE YMER TRIM F
UA	18" WH RO(	X .075"H X 4.3 ITE FINSIH, LE CKER SWITCH
ХА	CEI FIN DIR	LING MOUNT, ISH, HIGH IMP ECTIONAL CH

	Branch Panel: NB1 Location: Supply From: Mounting: Surface Enclosure: Type 1				I	Volts: Phases: Wires:	480Y/27 3 4	77V				A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating:	
скт	Circuit Description	Trip	Poles		Δ.		3		2	Poles	Trip	Circuit Description	СКТ
1	EXISTING LOAD: LIGHT 0302, E0200	20 A	1	0 VA	0 VA		_		-	1	20 A	EXISTING LOAD: LIGHT 0100, 0004, 0003, 0	)102 2
3	EXISTING LOAD: LIGHT C0100	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD: LIGHT	4
5	EXISTING LOAD: LIGHT W 0200	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: LIGHT 0002, 0201	6
7	LIGHTING: 102, 103	20 A	1	2213	0 VA					1	20 A	EXISTING LOAD: LIGHT 0101, 0201	8
9	EXISTING LOAD: EXIT	20 A	1			0 VA	0 VA			1	20 A	NB1	10
11	EXISTING LOAD: LIGHT IN TUNNEL	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: LIGHT 0010	12
13	EXISTING LOAD: LIGHT IN TUNNEL	20 A	1	0 VA	0 VA					1	20 A	SPARE	14
15	EXISTING LOAD: EM LIGHT IN TUNNEL	20 A	1			0 VA	0 VA			1	20 A	SPARE	16
17	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	18
19	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	20
21	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA						1		SPACE	26
27	SPACE		1							1		SPACE	28
29	SPACE		1							1		SPACE	30
31	SPACE		1							1		SPACE	32
33	SPACE		1							1		SPACE	34
35	SPACE		1							1		SPACE	36
37				0 VA	0 VA								38
39	TRANSFORMER AEBA	45 A	3			0 VA	0 VA			3	70 A	TRANSFORMER NBA	40
41								0 VA	0 VA				42
		Tot	tal Load:	221	3 VA	0 \	/A	0 \	/A				I
		Tota	al Amps:	8	А	0	A	0	A				
										I		Built (1	
										-		Panel Lotais	
												Total Conn. Load: 2213 VA	
												Total Est. Demand: 2213 VA	
												Total Conn.: 3 A	
												Total Est. Demand: 3 A	

	Branch Panel: NBB Location: Supply From: Mounting: Surface Enclosure: Type 1		Volts: 208Y/120V Phases: 3 Wires: 4								A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating:			
СКТ	Circuit Description	Trip	Poles		Δ		8		c	Poles	Trip	Circuit Description	СК	
1	EXISTING LOAD: RECEPT 0101K	20 A	1			•		<b>`</b>		1	20 A	EXISTING LOAD: RECEPT 0106 B C	2	
3	EXISTING LOAD: RECEPT 0101H	20 A	1	0 1/1		0 VA	720 VA			1	20 A	RECEPT & TV OPEN OFFICE 0106	4	
5	EXISTING LOAD: RECEPT 0101G	20 A	1			• • • •		0 VA	900 VA	1	20 A	TV WAITING RM. & RECEPT STAFF LOUNGE	6	
7	EXISTING LOAD: RECEPT 0101F	20 A	1	0 VA	1080					1	20 A	RECEPT CHECK-IN 0103	8	
9	EXISTING LOAD: RECEPT 0101M	20 A	1	-		0 VA	720 VA			1	20 A	RECEP NURSE STATION 0102K	10	
11	EXISTING LOAD: RECEPT 0101L	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT DEDICATED N	12	
13	RECEP CLEAN/EQUIP STORAGE 0102L	20 A	1	900 VA	540 VA					1	20 A	RECEPT EXAM 0102M	14	
15	RECEPT EXAM 102A	20 A	1			720 VA	1260			1	20 A	RECEPT EXAM 102B, 102C	16	
17	EXISTING LOAD: HOT WATER 0102	20 A	1					0 VA	900 VA	1	20 A	RECEPT EXAM 0102D	18	
19	EXISTING LOAD: RECEPT FRIDGE 0102	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD: RECEPT JANITORS CLOSET	20	
21	RECEPT EXAM 102E	20 A	1			1260	0 VA			1	20 A	EXISTING LOAD: ICE MACHINE	22	
23	RECEPTACLE: STAFF LOUNGE	20 A	1					180 VA	0 VA	1	20 A	EXISTING LOAD: DOOR OPENER (TUNNEL)	24	
25	EXISTING LOAD: RECEPT W WALL 0106	20 A	1	0 VA	1080					1	20 A	RECEPT ECHO 0102F	26	
27	EXISTING LOAD: RECEPT "A" 0106	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD: RECEPT PRINTER 0106A	28	
29	EXISTING LOAD: RECEPT "C" 0106	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT 0106A	30	
31	EXISTING LOAD: RECEPT "S" 0105	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD: RECEPT S WALL 0106	32	
33	EXISTING LOAD: RECEPT PRINTER & 0106	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD: RECEPT 0106	34	
35	EXISTING LOAD: RECEPT 105	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT 0106A	36	
37	EXISTING LOAD: COPIER E WALL 0106	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD: RECEPT E WALL 0106	38	
39	EXISTING LOAD: RECEPT LAMINATOR 0208	20.4	0			0 VA	0 VA			1	20 A	EXISTING LOAD: RECEPT 0108	40	
41	(OFF)	20 A	Z					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT N WALL 0106	42	
		Т	Total Load:		3600 VA		4680 VA		1980 VA					
	Total Amps: 32 A		2 A	41	A	17	7 A							
												Panel Totals		
										-		Total Conn. Load:10260 VATotal Est. Demand:10130 VATotal Conn.:28 ATotal Est. Demand:28 A		

### LUMINAIRE SCHEDULE

### DULE GENERAL NOTES: AIRES SHOWN ON THIS SCHEDULE MAY NOT BE USED ON THE VARIOUS PLANS. ALSO, THE USE OF ONLY CERTAIN NUMERICAL SUBSCRIPTS FOR LUMINAIRE TYPES (e.g. R2, R3, P2, P3, etc.) ON THIS OR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE, CLIPS, ANGLES, FRAMES, ETC. AS REQUIRED TO MOUNT THE LUMINAIRES IN OR ON THE SURFACES THEY ARE TO BE INSTALLED. ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING LOCATIONS OF LUMINAIRES AND CEILING TYPES. ALLING LUMINAIRES, THE CONTRACTOR SHALL USE THE LUMINAIRE MANUFACTURER'S MOUNTING HARDWARE AND FOLLOW ALL MANUFACTURER'S INSTALLATION DIRECTIONS. SED DOWNLIGHTS SHALL HAVE SELF-FLANGED REFLECTORS U.O.N. AND SHALL BE INSTALLED SO THAT THE BOTTOM OF THE THROAT IS EVEN WITH THE FINISHED CEILING PLANE. THE OVERLAPF LL MISCELLANEOUS HARDWARE ABOVE THE CEILING PLANE TO ACCOMPLISH THE ABOVE SHALL BE INCLUDED IN THE BASE BID.

### AIRES SHALL HAVE A U.L. LABEL.

HANICAL ELECTRICAL EQUIPMENT AREAS, CONTRACTOR TO COORDINATE LUMINAIRE LOCATIONS SUCH THAT LIGHT LUMINAIRES RUN PARALLEL TO THE FACE OF THE EQUIPMENT AND OVER AISL NELS, CONTROLS, VALVES, ETC. CHAIN HANGING, STEM HANGING, UNISTRUT HANGING, ETC. ARE ACCEPTABLE METHODS. AIRES SHALL OPERATE AT 120 OR 277 VOLTS OR OTHER VOLTAGE AS REQUIRED BY THE CIRCUITS AND/OR PANELS TO WHICH THEY ARE CONNECTED.

INAIRES ARE INSTALLED IN CONTINUOUS ROWS TWO (2) OR MORE, LUMINAIRES SHALL BE APPROVED FOR USE AS WIREWAY.

SPECIFICATION SECTION 265100 LIGHTING FOR ADDITIONAL INFORMATION CONCERNING LUMINAIRES, FINISHES, BALLASTS, LAMPS, ETC. CATALOG NUMBER MAY NOT BE LISTED. ORDER LUMINAIRE BASED ON DESCRIPTION, PARTIAL CATALOG NUMBER AND SPECIFICATIONS. THE FIRST MANUFACTURER LISTED IS THE BASIS-OF-DESI YING FROM BASIS-OF-DESIGN LUMINAIRE, PROVIDE A LUMINAIRE UTILIZING ±10% OF THE LED LUMENS INDICATED IN LUMINAIRE SCHEDULE. MPATIBILITY OF ALL DIMMING BALLASTS WITH SPECIFIED DIMMING CONTROLS PRIOR TO ORDERING AND PROVIDE APPROPRIATE COMPONENTS TO CREATE A COMPLETE AND FULLY FUNCTIONAL

DESCRIPTION	MANUFACTURER	
ECESSED LED LUMINAIRE, EXTRUDED ALUMINUM HOUSING WITH INJECTED TE END PLATES, GRID-LOCK FEATURE, HIGH OPTICAL GRADE ACRYLIC CTANCE BAKED WHITE ENAMEL FINISH, DAMP LOCATION LISTED.	METALUX ENCOUNTER 22EN-LD2-34-UNV-L835-CD-1 OR APPROVED EQUAL	
ALL LED DOWNLIGHT, MEDIUM BEAM DISTRIBUTION, SPUN ALUMINUM AST ALUMINUM 1-1/2" DEEP COLLAR, ALUMINUM HEAT SINK, WHITE NG, SPECULAR CLEAR FINISH.	PORTFOLIO LD4B-20-D010-EU4B-1020-80-35-4LB-M-0-LI OR APPROVED EQUAL	
DEEP LOW PROFILE LED UNDERCABINET TASK LIGHT, ALUMINUM HOUSING, GTH AS SHOWN ON DRAWINGS. PROVIDE HARDWIRE CONNECTION AND COORDINATE ACTUAL LENGTH WITH CABINETS PROVIDED.	HALO HU30BSC18P	
IE CAST AND EXTRUDED ALUMINUM HOUSING WITH BRUSHED ALUMINUM CT ACRYLIC CLEAR PANEL, EDGE LIT WITH RED LETTERS, SINGLE SIDED, VRONS PER PLANS	SURE-LITES EUX6-1-R OR APPROVED EQUAL	

	Location: Supply From: Mounting: Surface Enclosure: Type 1	Volts: 208Y/120V Phases: 3 Wires: 4									A.I.C. Rating: Mains Type: Mains Rating: 225 A MCB Rating: 150 A			
скт	Circuit Description	Trip	Poles		A		В	(	C	Poles	Trip	Circuit Description	ск	
1	EXISTING LOAD: EXTERIOR LIGHTING	20 A	1	0 VA	0 VA					2	20 A	EXISTING LOAD: EXTERIOR LIGHTING	2	
3	SPARE	20 A	1			0 VA	0 VA						4	
5	EXISTING LOAD: COOLING TOWER RECEP	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: AIR DRYER	6	
7	EXISTING LOAD: RECEPT 0302	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD: RECEPT CENTER 0200	8	
9	EXISTING LOAD: RECEPT 0302	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD: RECEPT CENTER 0200	10	
11	EXISTING LOAD: SWITCH C0100	20 A	1	0.14	0.14			0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT NE 0200 & 020	12	
13		20 A	1	0 VA	0 VA		0.14			1	20 A	EXISTING LOAD: RECEPT 0106	14	
15	EXISTING LOAD: OUTSIDE SIGN	20 A	1			0 VA	0 VA	0.1/4	0.1/0	1	20 A	EXISTING LOAD: RECEPT C0000 & BSMT	16	
1/	EXISTING LOAD: 0002A	20 A	1	0.1/4	0.1/4			0 VA	0 VA	1	20 A	EXISTING LOAD: PLUGMOLD 0002	18	
19	EXISTING LOAD: RECEPT 002	20 A	1	0 VA	0 VA	<u></u>	0.14			1	20 A	EXISTING LOAD: PLUGMOLD 0002	20	
21	EXISTING LOAD: RECEPT 002A	20 A	1			0 VA	0 VA	0.1/4	0.1/4	1	20 A	EXISTING LOAD: PLUGMOLD 0002	22	
23	EXISTING LOAD: RECEPT 0002	20 A	1	0.14	0.14			0 VA	0 VA	1	20 A	EXISTING LOAD: ELEV 1 & 2 - LIGHT. &	24	
25		20 A	1	0 VA	0 VA	0.1/4	0.1/4			1	20 A	EXISTING LOAD: ELEVATOR LIGHTING	26	
27	EXISTING LOAD: WATER COOLER	20 A	1			0 VA	0 VA	0.1/4	0.1/4	1	20 A	EXISTING LOAD: ELEV 3 LIGHT & RECEPT	28	
29	EXISTING LOAD: VAV POWER SUPPLY	20 A	1	0.14	0.50.1/4			0 VA	0 VA	1	20 A	EXISTING LOAD: ELEVATOR CAB LIGHT	30	
31 33	EXISTING LOAD: X-RAY 100A PANEL	20 A	2	0 VA	250 VA	0 VA	250 VA			2	20 A	RECEPT TREADMILL 0102E	32	
35	EXISTING LOAD: CHILLED WATER FLOW	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT 0101C	36	
37	EXISTING LOAD: CHEMICAL STATION	20 A	1	0 VA	0 VA					1	20 A	DOOR OPERATORS	38	
39	RECEPT ECHO 0102H & TOILET 0102J	20 A	1			1080	0 VA			1	20 A	EXISTING LOAD: RECEPT 0101B	40	
41	EXISTING LOAD: 30A 125V TELE. ROOM	30 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT 0101E	42	
43	EXISTING LOAD: 30A 125V TELE. ROOM	30 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD: RECEPT 0102, 0101A	44	
45	RECEPT ECHO 0102G	20 A	1			1080	0 VA						46	
47	EXISTING LOAD: FUME HOOD CABINET	20 A	1					0 VA	0 VA	3	20 A	EXISTING LOAD: AIR CURTAIN	48	
49	EXISTING LOAD: RECEPT S WALL 0302	20 A	1	0 VA	0 VA								50	
51	EXISTING LOAD: DEDICATED CIRCUIT LAB	20 A	1			0 VA	0 VA			2	20 A	EXISTING LOAD' TUNNEL HEATER	52	
53	EXISTING LOAD: JOHNSON CONTROL PANEL	20 A	1					0 VA	0 VA	_			54	
55	EXISTING LOAD: RECEPT LAB	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD: RECEPT 0101 COMM.	56	
57	EXISTING LOAD: RECEPT LAB	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD: RECEPT 0101 COMM.	58	
59	EXISTING LOAD: SECURITY CONTROLS	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD: RECEPT 0101 COMM.	60	
Total L			Total Load: 250 VA		2410 VA		0 VA							
		10	tal Amps:	2	A	20	JA	0	A					
												Panel Totals		
												Total Conn. Load: 2660 VA		
												Total Est. Demand: 2660 VA		
												Total Conn.: 7 A		

S PROJECT DOES NOT NECESSARILY N	ROJECT DOES NOT NECESSARILY MEAN THAT ON H1 OR A1 IS USED OR MISSING.									
PING FLANGE MUST THEN FIT FLUSH TO THE CEILING PLANE/THROAT. NO LIGHT LEAK MUST BE										
LES BETWEEN EQUIPMENT. INSTALL AT EXACT LOCATIONS AND AT EXACT HEIGHT TO ILLUMINATE ALL										
SIGN.										
- INSTALLATION.										
REMARKS	COLOR TEMP.	LAMP TYPE	LED LUMENS	DRIVER	WATTAGE					
	3500	LED	3400	DIM	29 W					

3500

3500

NA

LED

LED

LED

21 W

8 W

1 W

DIM

DRIVER

DRIVER

2390

440

NA

![](_page_29_Picture_14.jpeg)

![](_page_30_Figure_0.jpeg)

4

NO SCALE

![](_page_30_Figure_1.jpeg)

CORNERS OF

LIGHT FIXTURE BY

![](_page_30_Figure_2.jpeg)

![](_page_30_Figure_3.jpeg)

TYPICAL WIRING TO UNDERCABINET LIGHTS 1/2" = 1'-0"

![](_page_30_Figure_5.jpeg)

### -ACOUSTICAL TILE CEILING BY CEILING CONTRACTOR

TYPICAL MOUNTING DETAIL FOR RECESSED LUMINAIRE IN LAY-IN CEILING

![](_page_30_Figure_12.jpeg)

PLAN VIEW - DETAIL A - OUTLET BOXES IN HOLLOW WALL

![](_page_30_Figure_14.jpeg)

![](_page_30_Picture_15.jpeg)

TYPICAL 24" STUD SPACING. COORDINATE WITH G.C. BOXES IN OPPOSITE SIDES OF A FIRE RATED HOLLOW WALL SHALL BE SEPARATED BY A MINIMUM OF 24" AND THERE SHALL BE A STUD BETWEEN THE 2 BOXES. SEE KEYED NOTE 4 ON THIS

BETWEEN THE WALL AND THE EDGE OF THE BOX SHALL BE NO GREATER THAN 1/8" IN ACCORD WITH NEC. FIRE RATED WALLS MAY HAVE MORE THAN ONE LAYER OF SHEETROCK IN ORDER TO OBTAIN FIRE RATING. COORDINATE WITH G.C. AND ARCHITECTURAL DRAWINGS PRIOR TO

4 METAL STUD (NO HOLES). IF STUDS HAVE HOLES, BOXES MAY BE LESS THAN 24" APART AND FIRE RATED PUTTY PADS USED ON BOTH BOXES. 5 BOXES SHALL BE SET BACK FROM FINISHED SURFACE NO MORE THAN 1/4" IN ACCORD WITH NEC. BOXES SHALL BE SET AND THE WALL SHALL BE REPAIRED AS REQUIRED SO THAT THE SPACE

3 RACEWAY AS ALLOWED BY SPECIFICATIONS.

1 PLATE OR COVER ON FOR OUTLET, BOX OR WIREWAY. 2 <u>NON-FIRE RATED WALL (DETAIL A)</u>: OUTLET, SWITCH, RECEPTACLE, TEL., DATA, ETC. OR OTHER BOX SPECIFIED. FIRE RATED WALL (DETAIL B): SAME AS ABOVE EXCEPT BOX MUST BE STEEL WITH NOMINAL AREA NOT TO EXCEED 16 SQ. IN.

WALLS WITH G.C. AND ARCHITECTURAL DRAWINGS. 2 DETAIL A IS APPLICABLE TO ALL HOLLOW WALLS ON THIS PROJECT. DETAIL B ISAPPLICABLE TO ALL FIRE RATED HOLLOW WALLS ON THIS

1 COORDINATE LOCATIONS OF FIRE RATE WALLS AND THICKNESS OF ALL

![](_page_30_Figure_25.jpeg)

![](_page_30_Figure_26.jpeg)

# 2 ELECTRICAL DEVICE PLATE LABELING (ENGRAVING) NO SCALE

![](_page_30_Figure_28.jpeg)

![](_page_30_Picture_29.jpeg)